U.S. COAST GUARD

PERMIT APPLICATION

FOR THE

San Francisco-Oakland Bay Bridge East Span
Seismic Safety Project

May 2001

Submitted by:
California Department of Transportation
District 4
111 Grand Avenue
Oakland, CA 94611

DEPARTMENT OF TRANSPORTATION
P O BOX 23660
OAKLAND, CA 94623-0660
(510) 286-4444
TDD (510) 286-4454

May 16, 2001

Mr. David Sulouff
Chief, Bridge Section, U.S. Coast Guard
Eleventh Coast Guard District (OAN-2)
Building 50-6
Coast Guard Island
Alameda, CA 94501-5100

Dear Mr. Sulouff:

This letter is an application by the California Department of Transportation (Caltrans) for a U.S. Coast Guard (USCG) new bridge permit. The application is formatted to correspond to Chapter 2-A of the Bridge Permit Application Guide.

1. Application
Application is hereby made by Caltrans for approval by the Commandant, USCG, of the location and plans of a seismic safety project for the East Span of the San Francisco-Oakland Bay Bridge. The contact person at Caltrans is Mr. Steven Hulsebus, 111 Grand Avenue, Oakland, California 94623-0660. Mr. Hulsebus's phone number is 510-256-5085; fax is 510-622-5460.

2. Consultant Authorization
Not applicable.

3. Project Purpose, Location and Description
The purpose of the East Span Seismic Safety Project is to provide a seismically upgraded vehicular crossing between Yerba Buena Island (YBI) and Oakland for current and future bridge users. The East Span of the San Francisco-Oakland Bay Bridge, located on Interstate 80, crosses central San Francisco Bay on the border of San Francisco and Alameda counties, approximately 12 miles (19 kilometers) southeast of the San Francisco Bay confluence with the San Pablo Bay. The western project limit is the eastern portal of the YBI Tunnel located within the City and County of San Francisco (CCSF); however, project related traffic controls may extend to the west portal of the YBI tunnel and project signage may extend to the western approach of the West Span in San Francisco. The eastern project limit is located approximately 1,312 feet (400 meters) west of the toll plaza in the City of Oakland, Alameda County on a spit of land referred to as the Oakland Touchdown area. The project location is shown on Figure 1 and the project vicinity is shown on Figure 2. The alignment of the new bridge (Replacement Alternative N-6) is shown on Figure 3.

4. Authority for Construction
Caltrans owns the San Francisco-Oakland Bay Bridge and has the authority to make this application. Legal authority for the San Francisco-Oakland Bay Bridge is found in the General Bridge Act of 1946.

5. International Bridge
Not applicable.

6. Horizontal and Vertical Clearances
The clearances of the existing main navigation opening for the East Span are as follows:

Horizontal: 1330 feet (405 meters) between piers in the main navigation opening.

Vertical: 184 feet (56 meters) over Mean High Water.

The clearances of the new main navigation opening for the East Span would be as follows:

Horizontal: 1164 feet (355 meters) between the Main Tower and Pier E2 (fender to fender).

Vertical: 157 feet (49 meters) above Mean Sea Level at the main tower and 146 feet (45 meters) above Mean Sea Level at Pier E2. The vertical clearances above Mean High Water would be approximately 154 feet (48 meters) at the main tower and 143 feet (44 meters) at Pier E2.

The horizontal and vertical clearances of the new navigational channel will comply with USCG regulations. There will be a period of 2-3 years during construction when the location of temporary falsework would possibly divide the main navigation opening into three temporary channels with minimum horizontal clearance of 90 meters (295 feet) for each temporary channel (see Figure 7). These clearances would not meet regulations. However, as stated in the August 19, 1999 letter from USCG to Caltrans (see attachment 4), the USCG has determined these clearances to be adequate since they are greater than the 292 feet (89 meters) of clearance available at the Benicia-Martinez Highway and Railroad Bridge complex.

The in-water construction activities required to build the new bridge will affect the movement of commercial and recreational vessels. Marine traffic will be diverted from areas used for barge mooring or pile-driving operations and areas where trestles are erected. The number and width of the temporary clearances may change depending on the contractor's falsework design. The existing main navigation opening near YBI will remain open during construction of the new East Span.

7. Existing Bridge Structure
The East Span Seismic Safety Project will replace the existing East Span of the San Francisco-Oakland Bay Bridge, which is a fixed bridge owned by Caltrans that was approved for construction in May 1932.

Editor's Note: This outcome is subject to selection of the preferred replacement alternative and the Record of Decision. The alternative selected under the National Environmental Policy Act (NEPA) process will be confirmed in the final bridge permit application.

8. Bridge Removal
The existing East Span will be removed. In accordance with USCG regulations, all piers in the water will be removed down to an elevation at least 1.5 feet (0.3 meter) below the mudline, measured at the time of removal. The removal process will take approximately 2 years to complete and the disposal of associated dredged material is being considered for upland wetland sites, upland landfills, and a deep ocean disposal site. In addition, disposal of small monthly quantities is being considered for an in-Bay location.

9. Construction Schedule and Funding
Construction of the new East Span is scheduled to begin in early 2002 and is expected to take approximately 4 ½ to 5 years. Removal of the existing East Span is scheduled to take approximately 2 years.

The base budget for the project, established in Section 188 of the California Streets and Highways Code (CSHC), is about $1.3 billion. Project funding comes from a combination of state taxes, bond revenues, and moneys collected through a one-dollar bridge toll surcharge effective January 1, 1998, on all state-owned bridges in the Bay Area. Federal funding will also be used for this project. State taxes, in the form of state fuel tax revenues are 33.3 percent of the budget, state seismic retrofit bond revenues will fund 30.2 percent of the project and the toll surcharges from state-owned Bay Area toll bridges will fund the remaining 36.5 percent.

10. Impacts to the Environment
Environmental impacts and mitigation associated with the project are described in the Final Environmental Impact Statement/Statutory Exemption (FEIS/SE) (please see document). The USCG is a cooperating agency in preparation of the FEIS pursuant to NEPA.

Information for the Environmental Investigation requested in Chapter 3 of the USCG Bridge Permit Application Guide is in the FEIS (to be provided). Table 1 cross-references this application and relevant sections in the FEIS or attachments to this application.

Table 1

Topic	**FEIS Section Reference and Attachments**
NEPA Compliance	Appendix E
Alternatives	2.2
Public Parks and Recreation Areas	Chapter 6
Wildlife/Waterfowl refuges	Chapter 6
Historic and/or Cultural Sites	4.10, Chapter 6, Appendix O
Section 4(f)	Chapter 6
Coastal Zone Management Plan Consistency	See Attachments 1 and 6
Wetlands (Acreages impacted)	4.9, Appendix F, Appendix N
Floodplain	See Attachment 2
Water Quality Certification	3.8, See Attachment 8
Threatened and Endangered Species	3.9, 4.9, See Attachment 3
Wild and Scenic Rivers	None in Project Area, see 3.8
Prime or Unique Farmlands	None in Project Area, see 3.1
Air quality, State Implementation Plan Consistency	4.4, 4.14.4
Noise Impacts to Surrounding Land Uses*	4.5, 4.14.5
Displacement of Residences or Businesses	4.1

*Editor's note: Caltrans conducted a Pile Installation Demonstration Program (PIDP) in Fall 2000 to provide empirical data to contractors and resource agencies about noise levels associated with pile driving in San Francisco Bay. The noise monitoring system that was used in the PIDP included three types of monitoring equipment, consisting of ground vibration monitors (geophones), waterborne monitors (hydrophones), and airborne monitors (microphones). The Federal Highway Administration (FHWA) approved a NEPA categorical exclusion for the PIDP on December 13, 1999.

11. State and Local Approvals
The project will require the following state agency reviews and approvals:

Agency	Review/Approval
Bay Conservation and Development Commission (BCDC)	Major Permit pursuant to the McAteer-Petris Act.
California Department of Fish and Game	Section 2090, Fish and Game Code requires participation in USFWS Section 7 consultation process.
Regional Water Quality Control Board	Grant a certificate for compliance with Section 401 of the Clean Water Act.

12. Federal Agency Jurisdiction
FHWA is the lead federal agency for the project. Federal funds may be used to fund portions of the proposed replacement. Additional Federal agencies granting approval, easements or other actions for the project include:

Federal Agency	Type of Approval
National Marine Fisheries Service	Concurrence with impacts and mitigation measures presented in the NEPA FEIS. Grant an Incidental Harassment Authorization pursuant to Marine Mammal Protection Act, Section 7-Endangered Species Act Consultation. See attachment 3.
U.S. Army Corps of Engineers	Combined Section 404-Clean Water Act Individual Permit and Section 10-Rivers and Harbors Act Permit.
U.S. Coast Guard	Approve the location and placement of bridges under the General Bridge Act of 1946.
U.S. Environmental Protection Agency	Concurrence with Least Environmentally Damaging Practicable Alternative (LEDPA) and mitigation measures presented in the NEPA Environmental Impact Statement (EIS).
U.S. Fish and Wildlife Service	Section 7-Endangered Species Act Consultation. See attachment 3.

13. Placement of Fill

The project would require temporary fill for in-Bay construction. The use of temporary trestles is being considered for the north side of the new westbound deck near YBI (see Figure 12). Near the Oakland Touchdown area, the use of temporary trestles is being considered for the south side of the existing east span, the north side of the new westbound deck, and/or between the new eastbound and westbound decks (see Figure 13). The trestles would provide access for construction equipment but would not block navigation in the Bay and will be removed when construction is complete. Temporary piers would be placed in waters of the United States to support these trestles and temporary docks that would be used for loading and unloading of materials, and mooring of construction boats. Temporary structures may also be placed in deep water areas to support the construction of the suspension span. Construction activities would result in a temporary increase in the volume of fill (approximately 53,600 cubic yards (41,000 cubic meters)) in waters of the United States.

Temporary pier piles will be cut off at an elevation of at least 1.5 feet (0.3 meter) below the mud line, in accordance with USCG regulations. The geologic formations underlying the proposed bridge alignment consist of deep layers of soft soils that do not offer enough axial skin friction capacity and lateral resistance for the piles to support large loads at higher elevations. Therefore, large temporary pier piles will have to be imbedded deep into the bay bottom to provide sufficient support for the heavy bridge spans during construction. It is expected that these piles will be approximately 5 feet (1.5 meters) in diameter and up to 180 feet (55 meters) long. The temporary pier piles will need to be in place for approximately two years. During the two years, the soil will set up and the pile's bond to the soil will gain strength, which will make it difficult or perhaps impossible to remove the temporary pier piles. The pile templates will be removed in their entirety.

Caltrans is proposing other temporary and permanent fill in special aquatic sites and/or Other Waters of the U.S. Temporary fill during construction would include the support piers in eelgrass beds, sand flats and Other Waters of the U.S., a geotube (flexible polymer tube) to be used as a tidal berm in sand flats, and cofferdams around bridge piers in Other Waters of the U.S.

Permanent fill would include new bridge piers and pile caps in Other Waters of the U.S., fill on sand flats supporting part of the westbound roadway at the east approach and part of the new maintenance access roadway, and fill to restore part of the barge access channel after construction. Restoration of the barge access channel would include using up to 42,000 cubic yards (32,000 cubic meters) of stockpiled material dredged from the channel, and excavated sand, to re-establish suitable eelgrass habitat in the impact area. Removal of the existing bridge piers and fenders however, would remove approximately 85,600 cubic yards (65,400 cubic meters) of fill from Other Waters of the U.S., resulting in a beneficial net reduction in permanent Bay fill volume of approximately –19,600 cubic yards (15,000 cubic meters).

For additional information on project related fill, please see Section 4.9-Natural Resources and Section 4.14.8-Natural Resources (Construction Period Impacts), in the FEIS.

14. Dredging

The estimated volume of dredged material to be disposed of is 616,721 cubic yards (471,517 cubic meters). Approximately 216, 230 cubic yards (165,320 cubic meters) of material would be generated to create the barge access channels. Of this, about 200,000 cubic yards (153,000 cubic meters) would be generated early in the project for access channels to construct a replacement bridge, and about 190,680 cubic yards (145,785 cubic meters) would be generated late in the project for access channels to remove the existing bridge. It is estimated that during construction of new piers and footings 187,087

cubic yards (143,038 cubic meters) would be generated and that during removal of existing piers 22,724 cubic yards (17,374 cubic meters) of material would be generated.

Materials generated during creation of barge access channels would be beneficially reused at an upland wetland restoration site if such a site is available, approved for use and cost-effective. If there are no such sites at the time the material is dredged, Suitable for Unconfined Aquatic Disposal (SUAD) materials from this activity meeting the physical criteria may be disposed of at San Francisco Deep Ocean Disposal Site (SF-DODS) or be reused for daily cover at an upland landfill.

*Editor's Note: Disposal at other aquatic sites without prior authorization is prohibited. Separate authorization will be required to use such sites.

15. Adjacent Property Owners
The following entities own property within or adjacent to the project area:

- The United States Navy, Assistant Secretary of the Navy, Installations and Environment, 1000 Navy Pentagon, Washington, D.C. 20360-5000
- The United States Army, Oakland Army Base, Oakland, CA 94626
- The United States Coast Guard, Coast Guard Island, Building 54D, Alameda, CA 94501-5100
- The Port of Oakland, 530 Water Street, Jack London Square, P.O. Box 2084, Oakland, CA 94604-2064
- The Port of San Francisco, Ferry Building, San Francisco, CA 94111
- The City of Oakland, City Hall, One City Hill Plaza, Oakland, CA 94612
- The State of California, District 4, 111 Grand Avenue, Oakland, CA 94612
- East Bay Municipal Utility District, P.O. Box 24055, Oakland, CA 94623-1055

*Editor's Note: Consultation with these property owners is ongoing as part of the East Span Seismic Safety Project.

16. Technical Studies
Detailed technical studies are referenced in this application as appropriate. In addition, the following technical studies and reports have been considered in the development of this submission:

- Addendum Archaeological Survey Report – Maritime Archaeology, March 2000
- Addendum Finding of Adverse Effect, October 1999
- Air Quality Study Memorandum, March 1998
- Bicycle and Pedestrian Study, September 1998
- Biological Assessment, June 1999
- Community Impact Assessment, September 1999
- Consideration of Proposed Mitigation Measures for Project Effects on Historic Buildings and Structures, September 1999
- Dredged Material Management Plan, June 1999
- Final Relocation Impact Report, April 2001
- Finding of Adverse Effect: Building and Structures, September 1998
- Finding of Effect for Archaeological Resources, July 1998

Technical Studies (continued)

- Hazardous Wastes Assessment, September 1998
- Historic Architecture Survey Report, July 1998
- Historic Property Survey Report, April 1996
- Location Hydraulic Study, September 1998
- Natural Environment Study, September 1998
- Noise and Vibration Study, September 1998
- Phase I Archaeological Survey Report – Maritime Archaeology, February 2000
- Positive Archaeological Survey Report, June 1998
- Submerged Cultural Resources, December 1999

16. Reproducible Plan Sheets

See Figure 6-Plan and Elevation

Thank you for your continued participation in San Francisco-Oakland Bay Bridge East Span Seismic Safety Project. Expedited processing of this bridge permit application is requested given the need to ensure seismic safety for the East Span. If you need additional information to complete processing of this application, please contact Steven Hulsebus at (510) 286-5085 or Pochana Chongchaikit at (510) 286-5057.

Sincerely,

HARRY Y. YAHATA
District Director

By

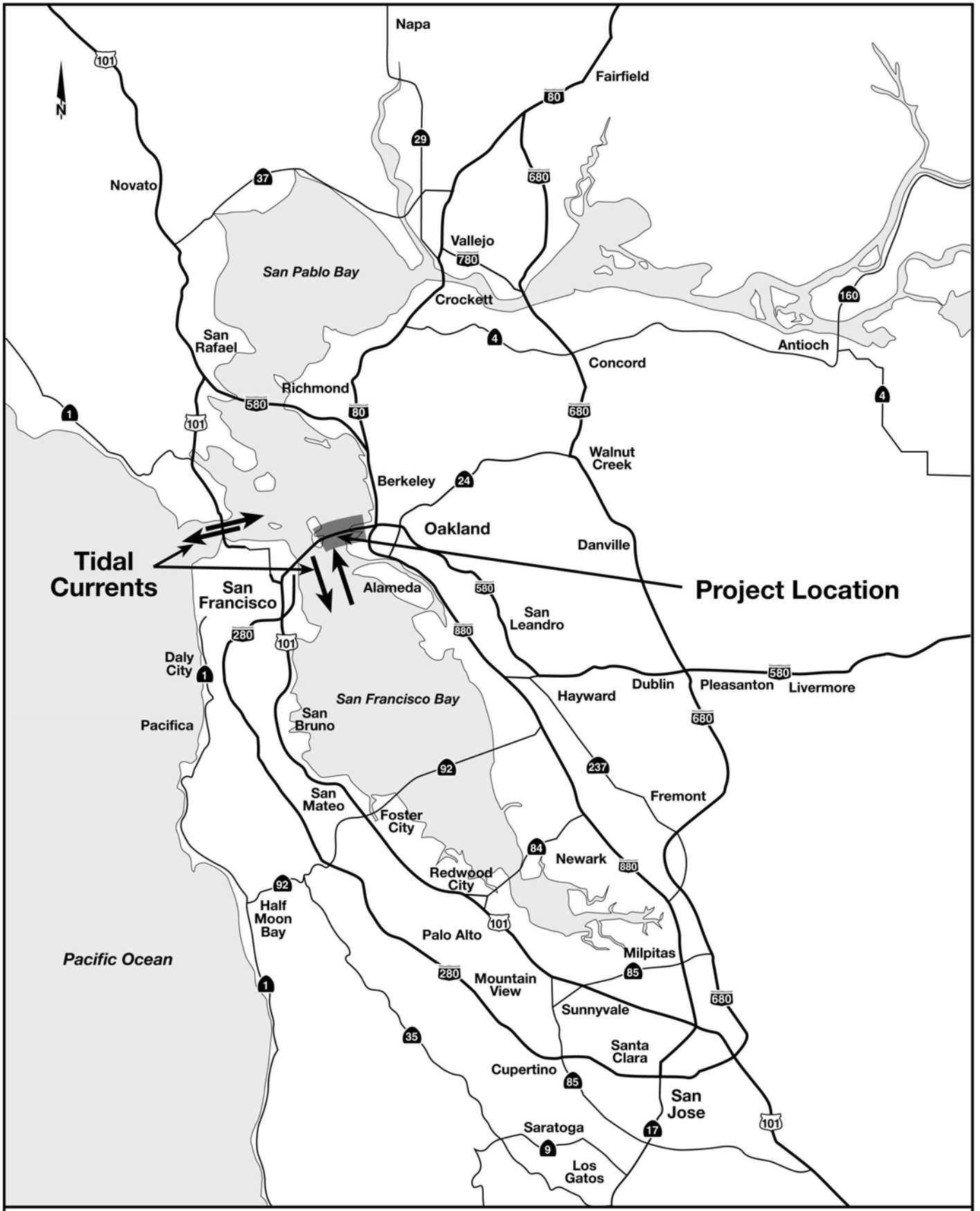
H. P. HENSLEY
Program Manager
Toll Bridge Program

Figures

1. Project Location
2. Project Vicinity
3. Location of Proposed Bridge
4. Existing Land Uses on Yerba Buena Island
5. Existing Land Uses on Oakland Touchdown Area
6. Plan and Elevation
7. Temporary Channels During Construction
8. Typical Cross Section
9. Fender System Plan and Details Pier E2
10. Main Tower Fender Plan
11. Navigational Opening
12. Conceptual Trestles at YBI
13. Conceptual Trestles at Oakland Touchdown

Attachments

1. Preliminary Determination of Consistency with the Coastal Zone Management Plan
2. Floodplain Analysis
3. Section 7 Consultation from National Marine Fisheries Service and US Fish and Wildlife Service
4. Correspondence from the U.S. Coast Guard Concerning Construction Period Navigational Aids and Clearances
5. Correspondence from US Coast Guard Concerning Pier Removal Elevations
6. Final Determination of Consistency with the Coastal Zone Management Plan
7. Proof of land ownership in the project area
8. RWQCB Certificate of Compliance
9. EPA letter of concurrence on the LEDPA
10. NMFS letter of concurrence on impacts and mitigation
11. BCDC Major Permit pursuant to the McAteer-Petris Act
12. ACOE combined Section 404-Clean Water Act Individual Permit and Section 10-Rivers and Harbors Act Permit
13. Approval of Location and Plans of Bridge



SFOBB
EAST SPAN
SEISMIC SAFETY
PROJECT

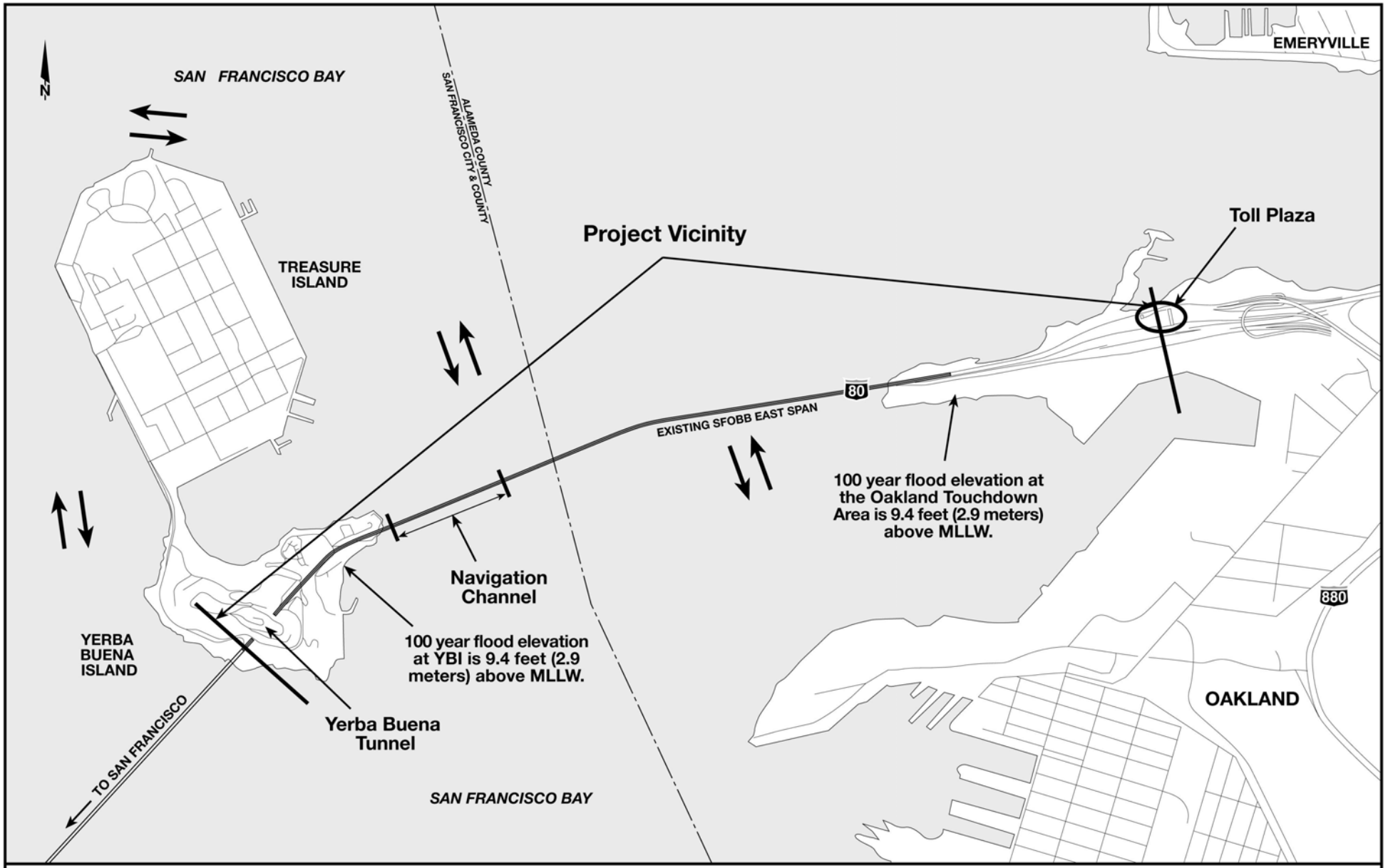
Project Location

Scale

Kilometers 0 5 10 15 20 Kilometers

Proposed San Francisco-Oakland Bay Bridge East Span Replacement
Name of Applicant - Caltrans
Waterway - San Francisco Bay
SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA
Feb. 2001

Figure 1



Project Vicinity

SFOBB
EAST SPAN
SEISMIC SAFETY
PROJECT

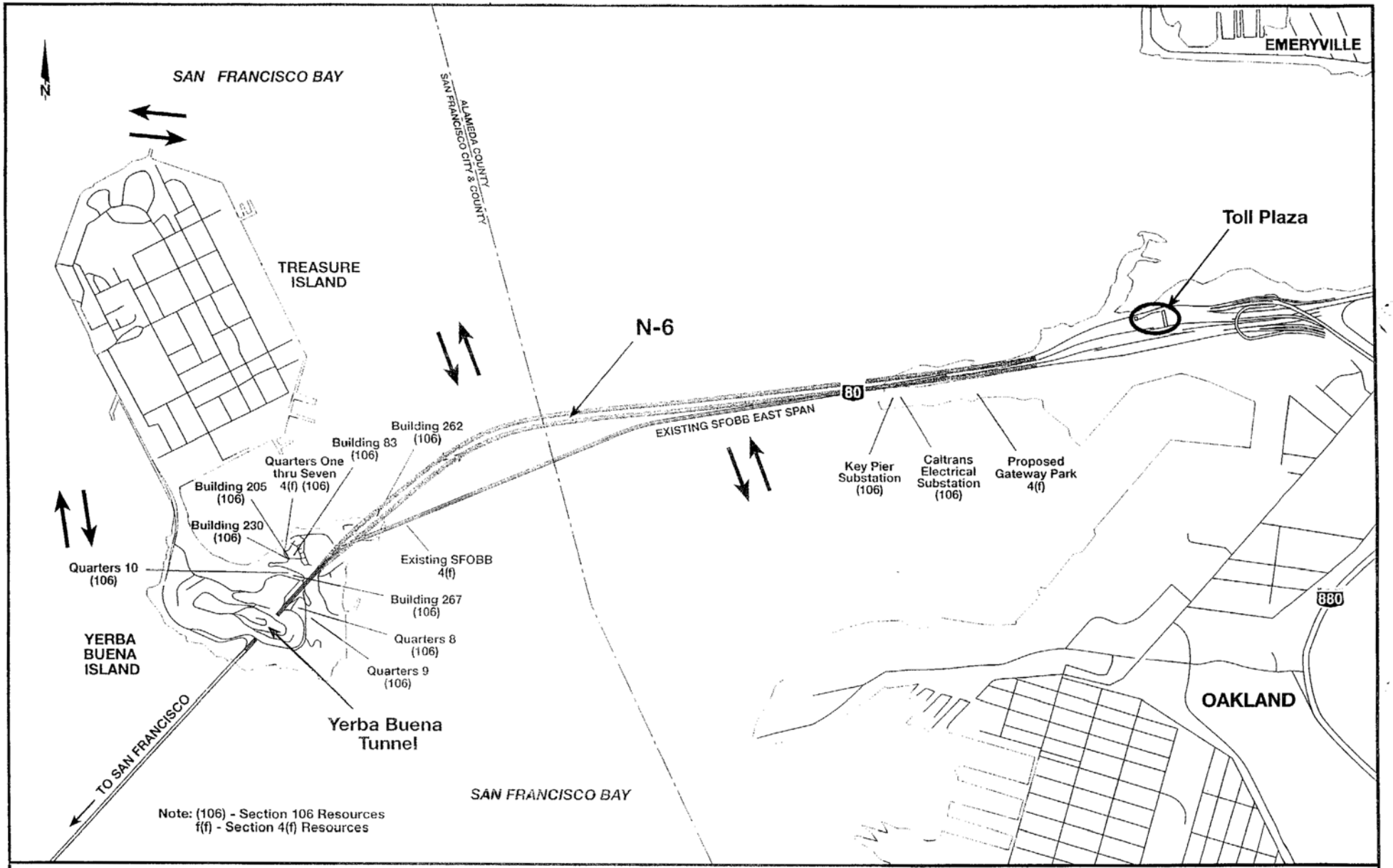
Tidal Currents

GRAPHIC SCALE 1:27,500

0 250 500 1000 m

Proposed San Francisco-Oakland Bay Bridge East Span Replacement
Name of Applicant - Caltrans
Waterway - San Francisco Bay
SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA
Feb. 2001

Figure 2



SFOBB
EAST SPAN
SEISMIC SAFETY
PROJECT

Location of Proposed Bridge

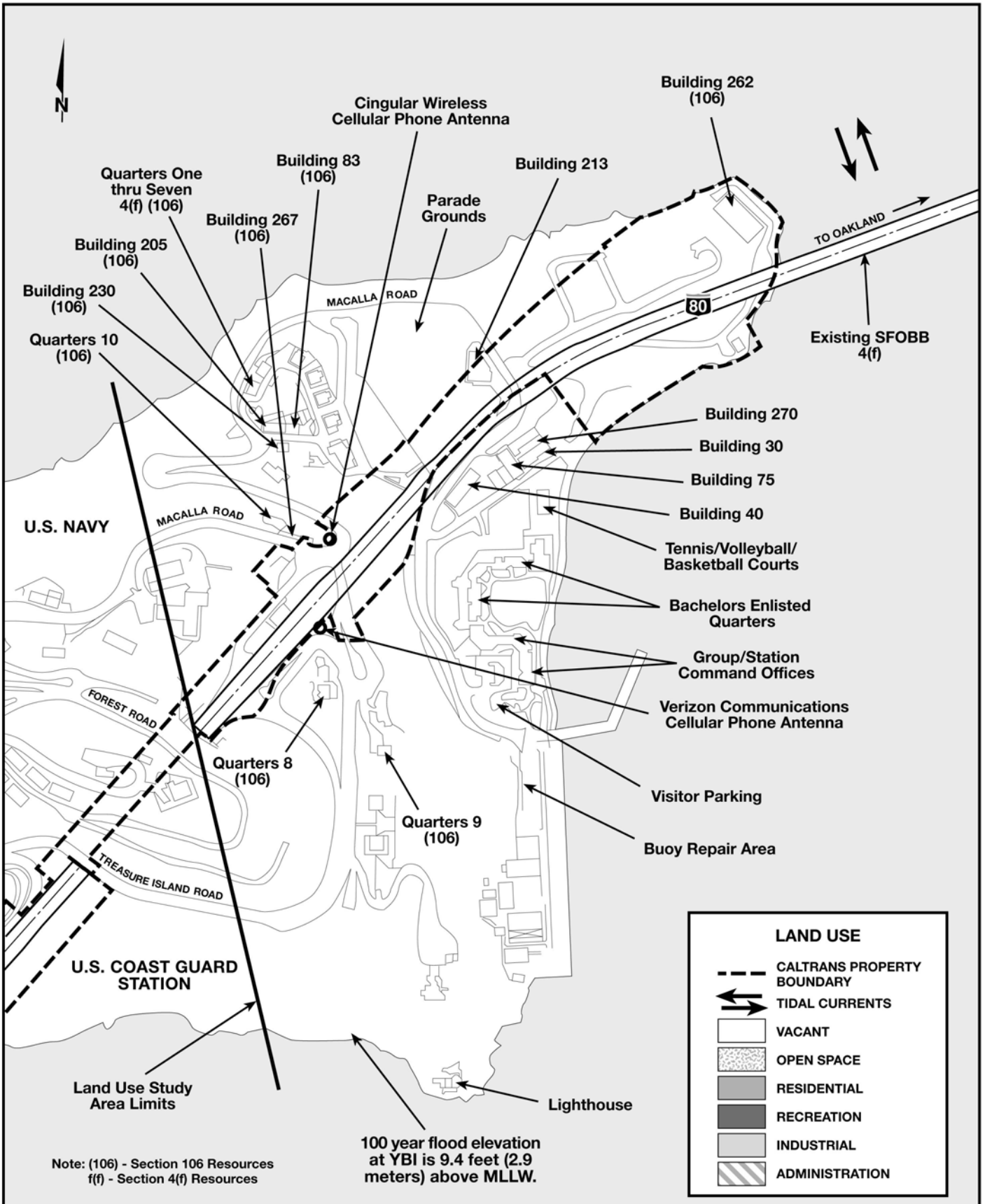
Tidal Currents

GRAPHIC SCALE 1:27,500

0 250 500 1000 m

Proposed San Francisco-Oakland Bay Bridge East Span Replacement
Name of Applicant - Caltrans
Waterway - San Francisco Bay
SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA
Feb. 2001

Figure 3



SFOBB
EAST SPAN
SEISMIC SAFETY
PROJECT

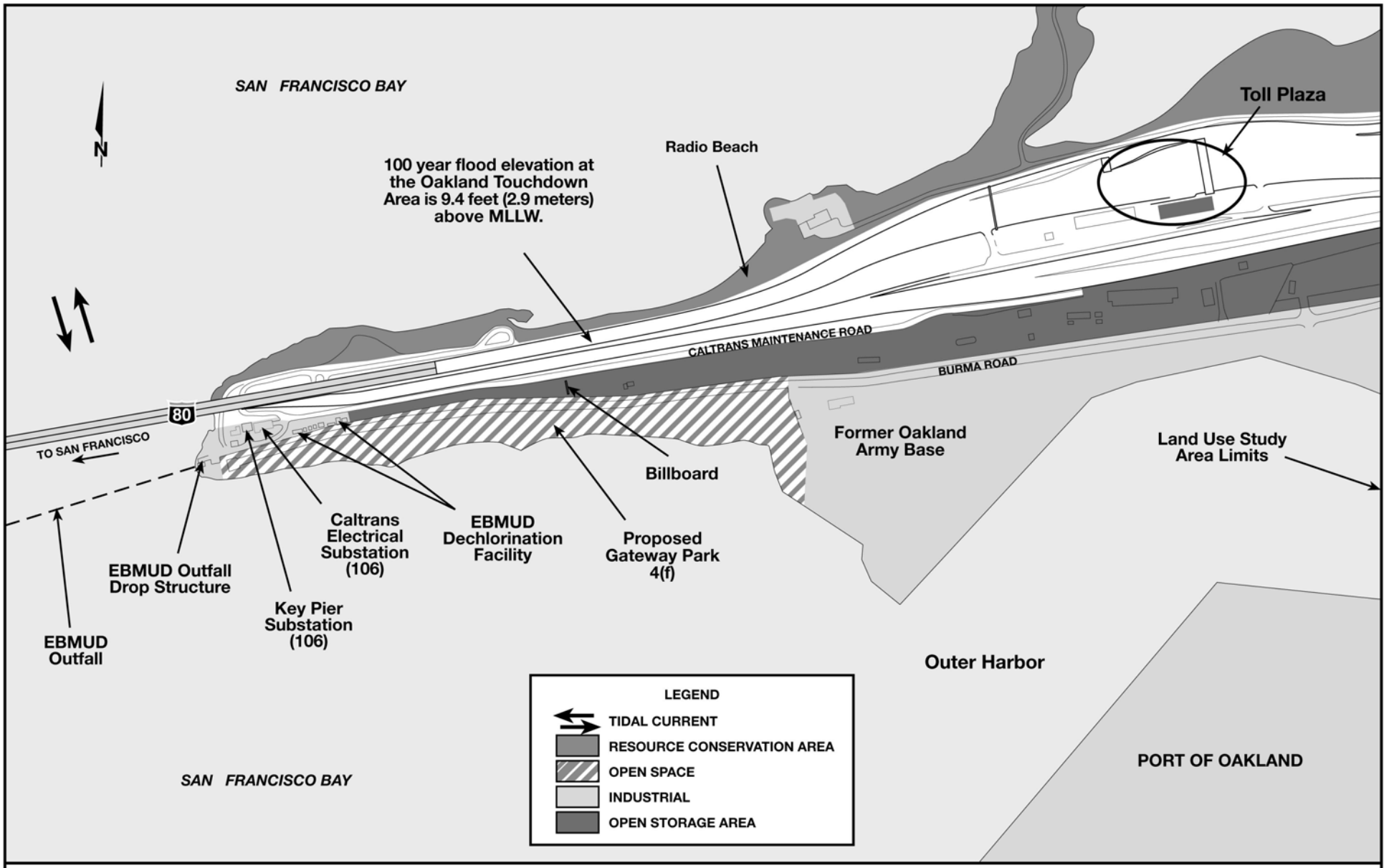
Existing Land Uses
Yerba Buena Island

GRAPHIC SCALE 1:5,000

0 100 200m

Proposed San Francisco-Oakland Bay Bridge East Span Replacement
Name of Applicant - Caltrans
Waterway - San Francisco Bay
SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA
Feb. 2001

Figure 4



SFOBB EAST SPAN SEISMIC SAFETY PROJECT

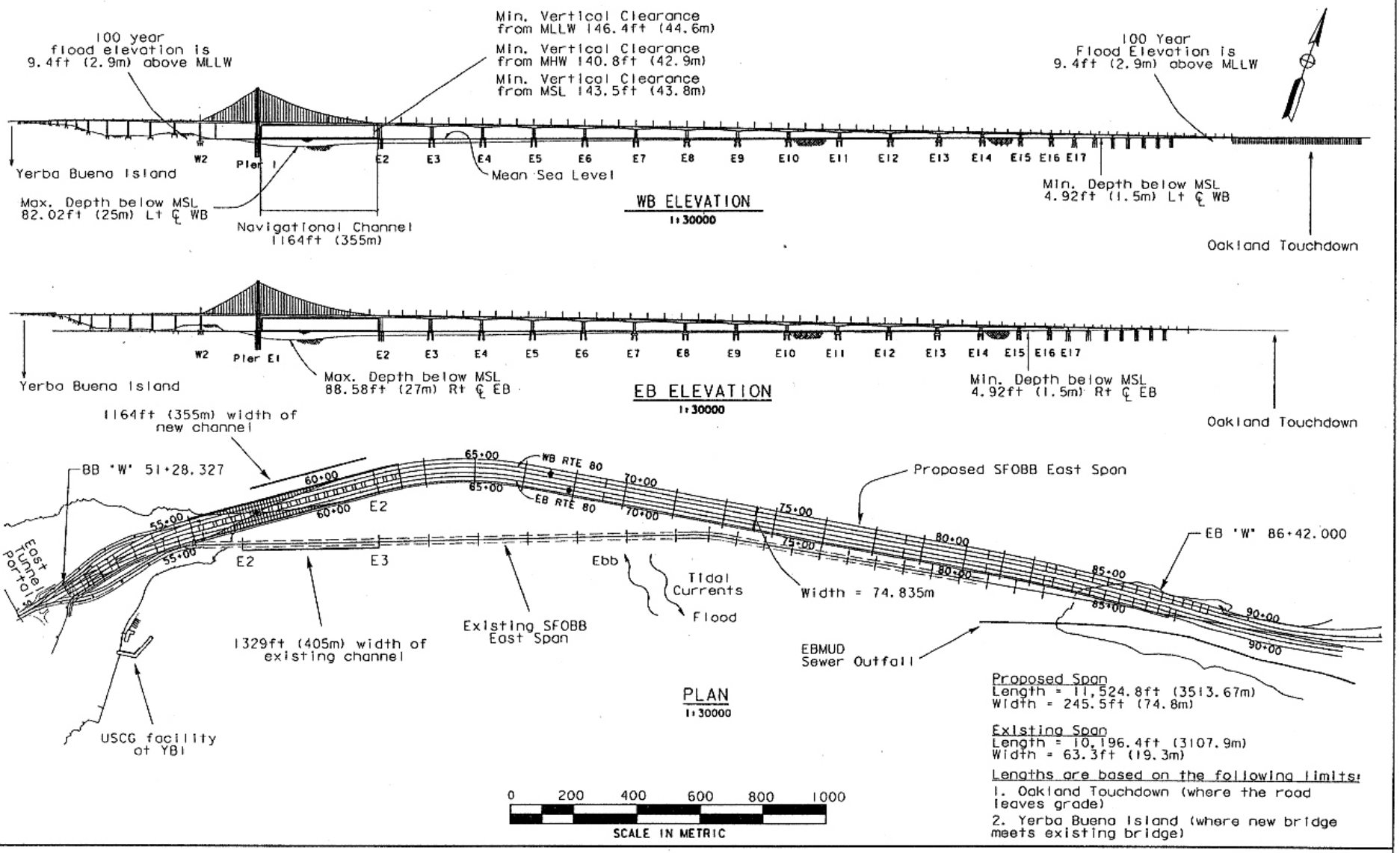
Existing Land Uses Oakland Touchdown Area

GRAPHIC SCALE 1:8,000

0 50 100 200 m

Proposed San Francisco-Oakland Bay Bridge East Span Replacement
Name of Applicant - Caltrans
Waterway - San Francisco Bay
SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA
Feb. 2001

Figure 5



Proposed Span
Length = 11,524.8ft (3513.67m)
Width = 245.5ft (74.8m)

Existing Span
Length = 10,196.4ft (3107.9m)
Width = 63.3ft (19.3m)

Lengths are based on the following limits:

1. Oakland Touchdown (where the road leaves grade)
2. Yerba Buena Island (where new bridge meets existing bridge)

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Plan and Elevation

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

Name of Applicant - Caltrans

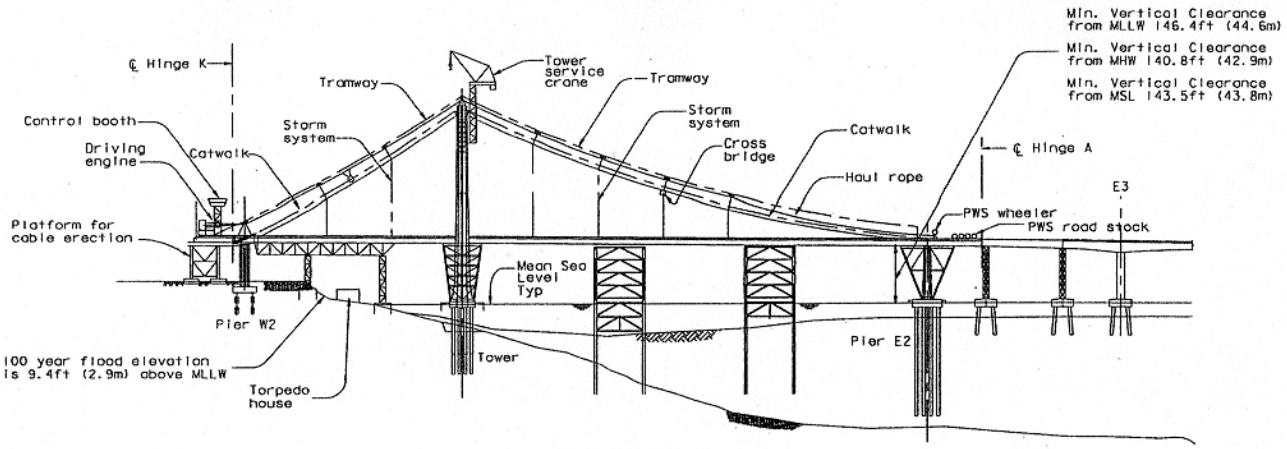
Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

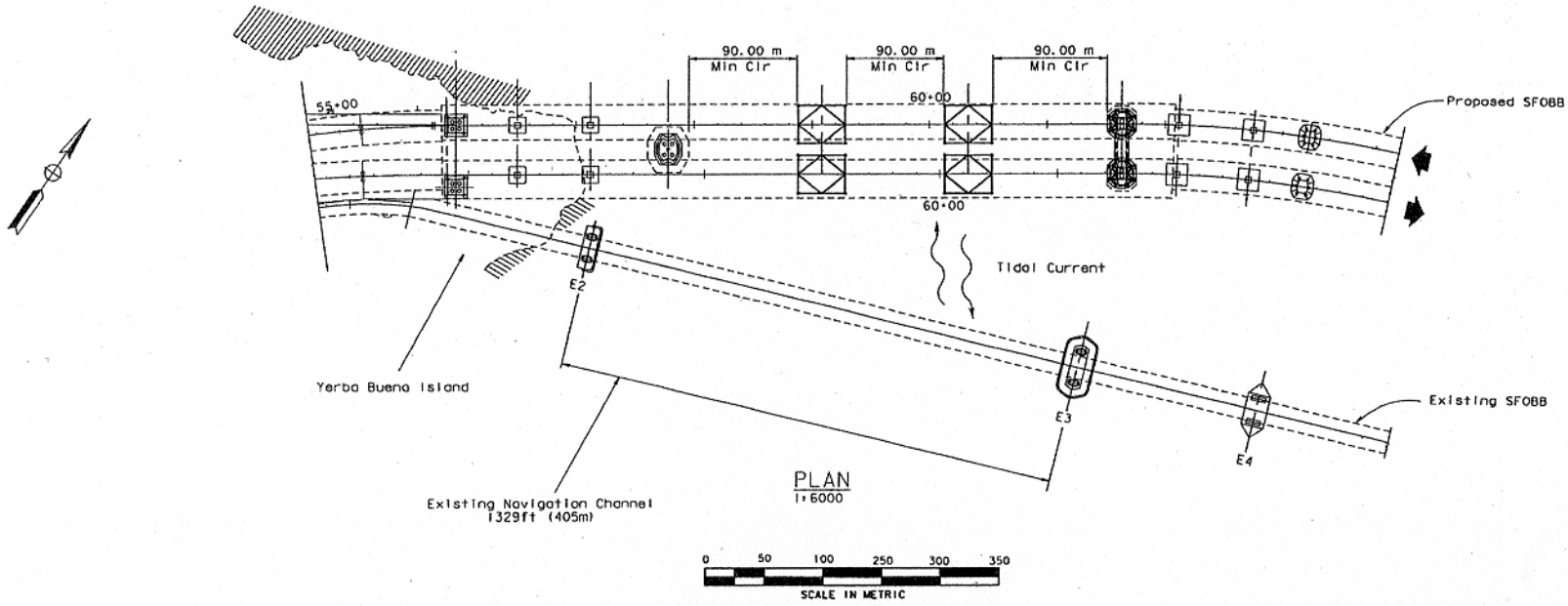
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001

FIGURE 6



ELEVATION



PLAN
1:6000

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Temporary Channels During Construction

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

Name of Applicant - Caltrans

Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

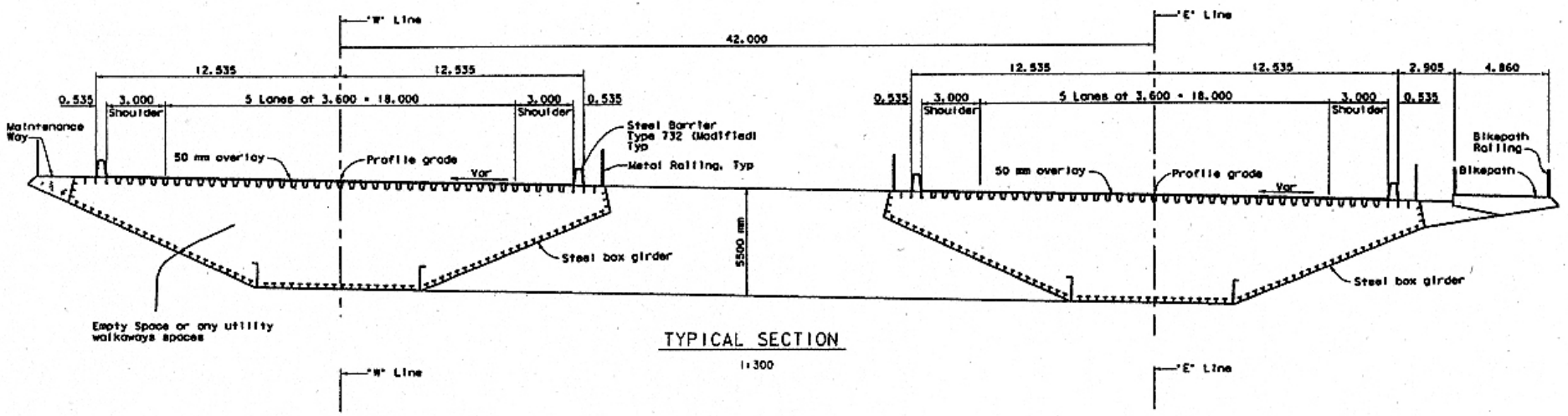
Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001

FIGURE 7

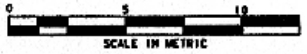
MAIN SPAN
(STEEL SECTION)
SUSPENSION BRIDGE

CROSS SECTION



TYPICAL SECTION

1:300



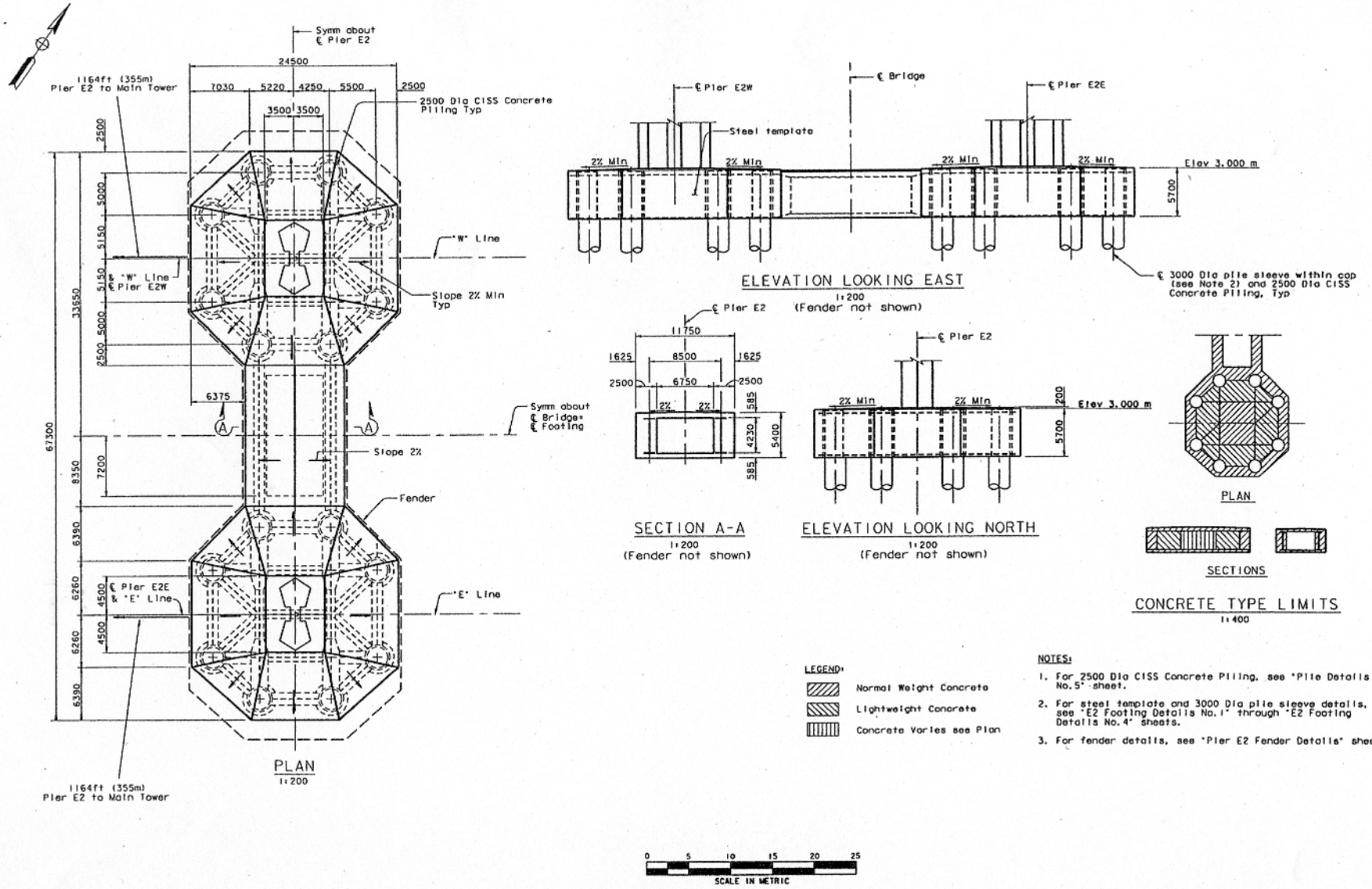
SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Typical Cross Section

Proposed San Francisco-Oakland Bay Bridge East Span Replacement
Name of Applicant - Caltrans
Waterway - San Francisco Bay
SF PM 7.6-8.7, Alam. PM 0.0-1.3 SF KP 12.2-14.3, Alam. KP 0.0-2.1
Location - San Francisco, San Francisco County, CA Oakland, Alameda County, CA
Jan 2001
FIGURE 8



SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Fender System Plan and Details Pier E2

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

Name of Applicant - Caltrans

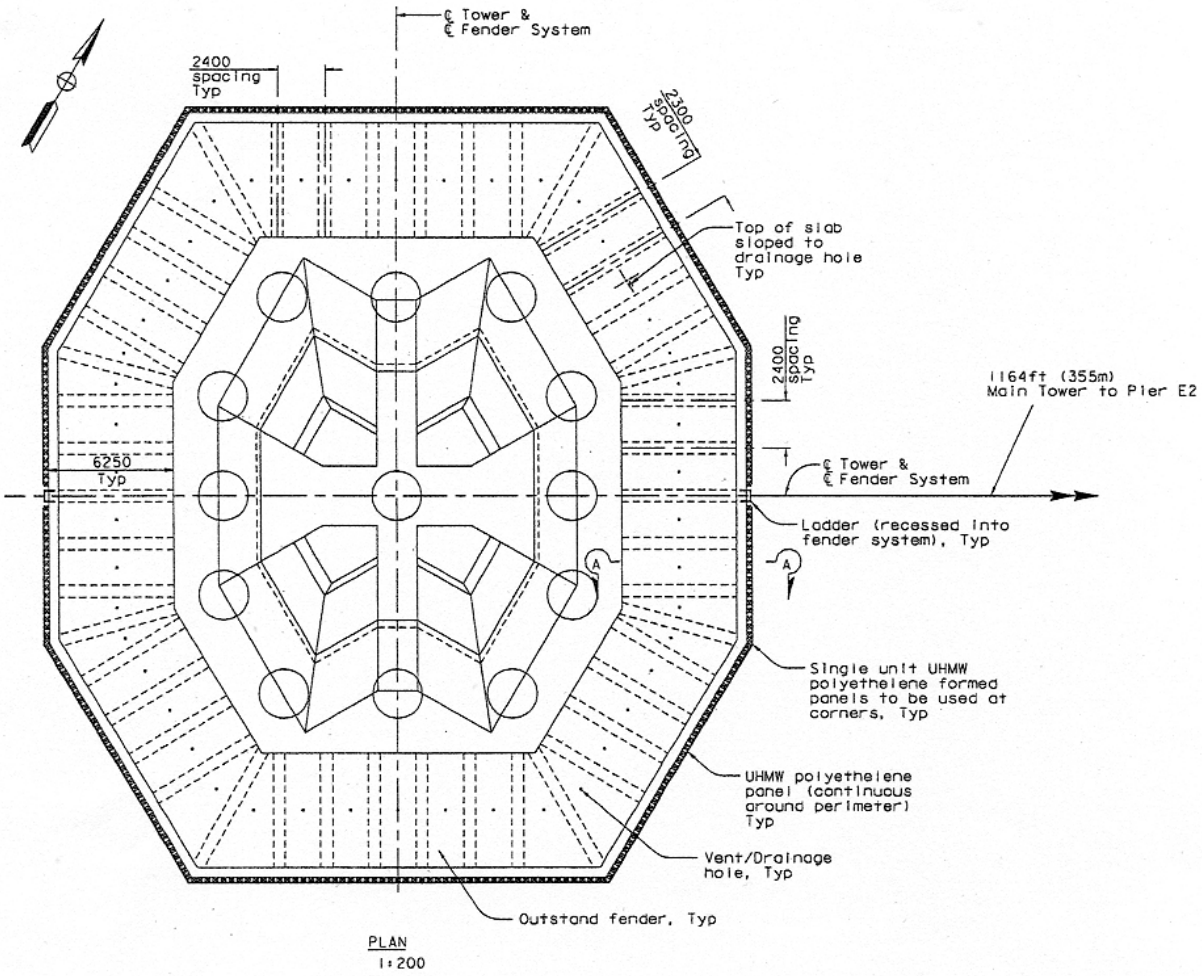
Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001

FIGURE 9



PLAN
1:200

NOTES:

1. All couplings, bolts, and lag bolts shall be ASTM A276, Type 316 stainless steel.
2. All plastic lumber waiers shall be reinforced with 4 - 25 mm diameter fiberglass reinforcing bars.
3. Fiberglass reinforcing bars shall not be damaged while drilling holes through plastic lumber.
4. Horizontal Distance from Tower to Pier E2 Measured from face of fender to fece of fender

0 5 10
SCALE IN METRIC

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Main Tower Fender Plan

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

Name of Applicant - Caltrans

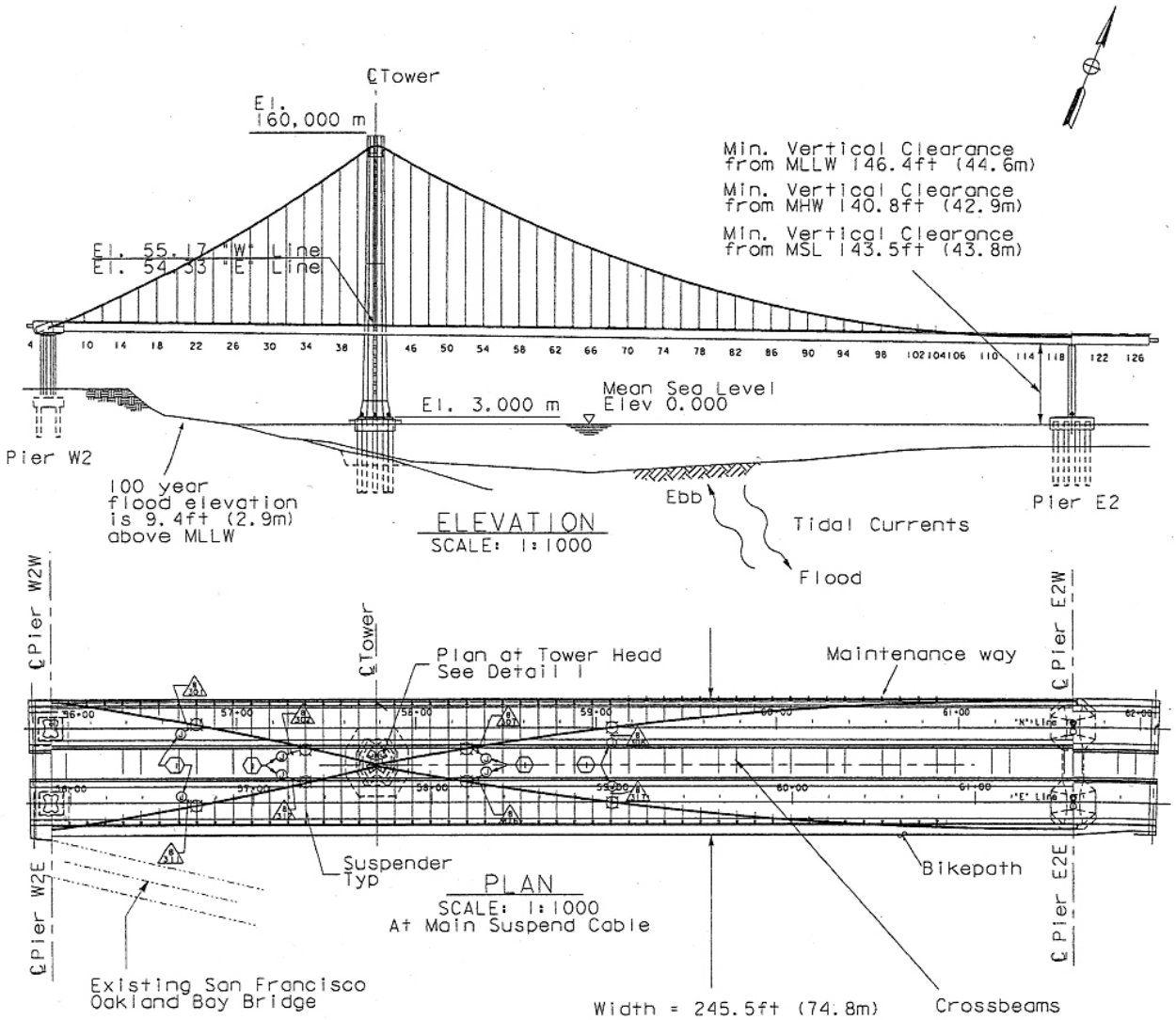
Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001

FIGURE 10



0 50 100 150 200 250

SCALE IN METRIC

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown

Navigational Opening

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

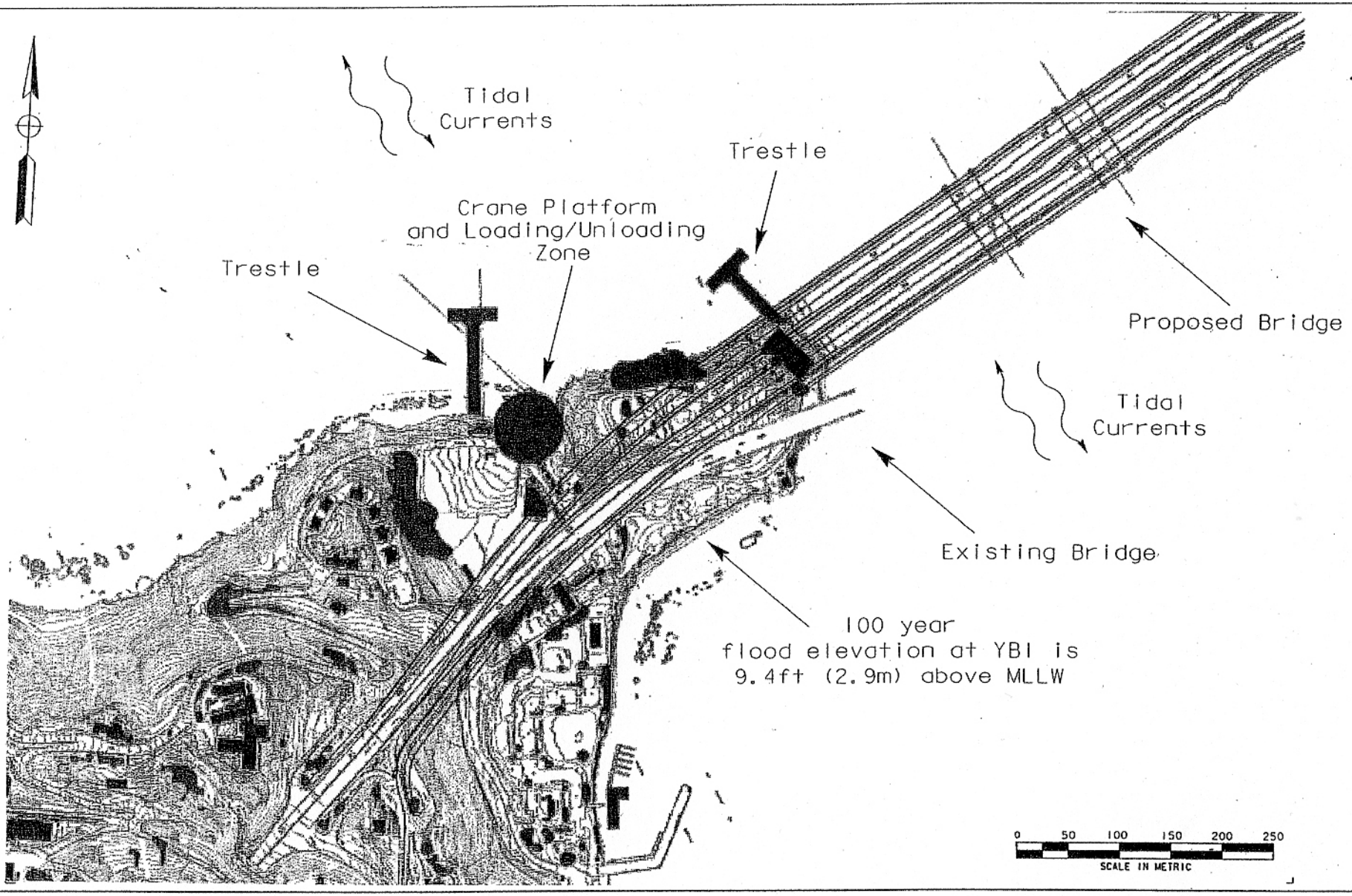
Name of Applicant - Caltrans

Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001



SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Conceptual Trestles at YBI

Proposed San Francisco-Oakland Bay Bridge East Span Replacement

Name of Applicant - Caltrans

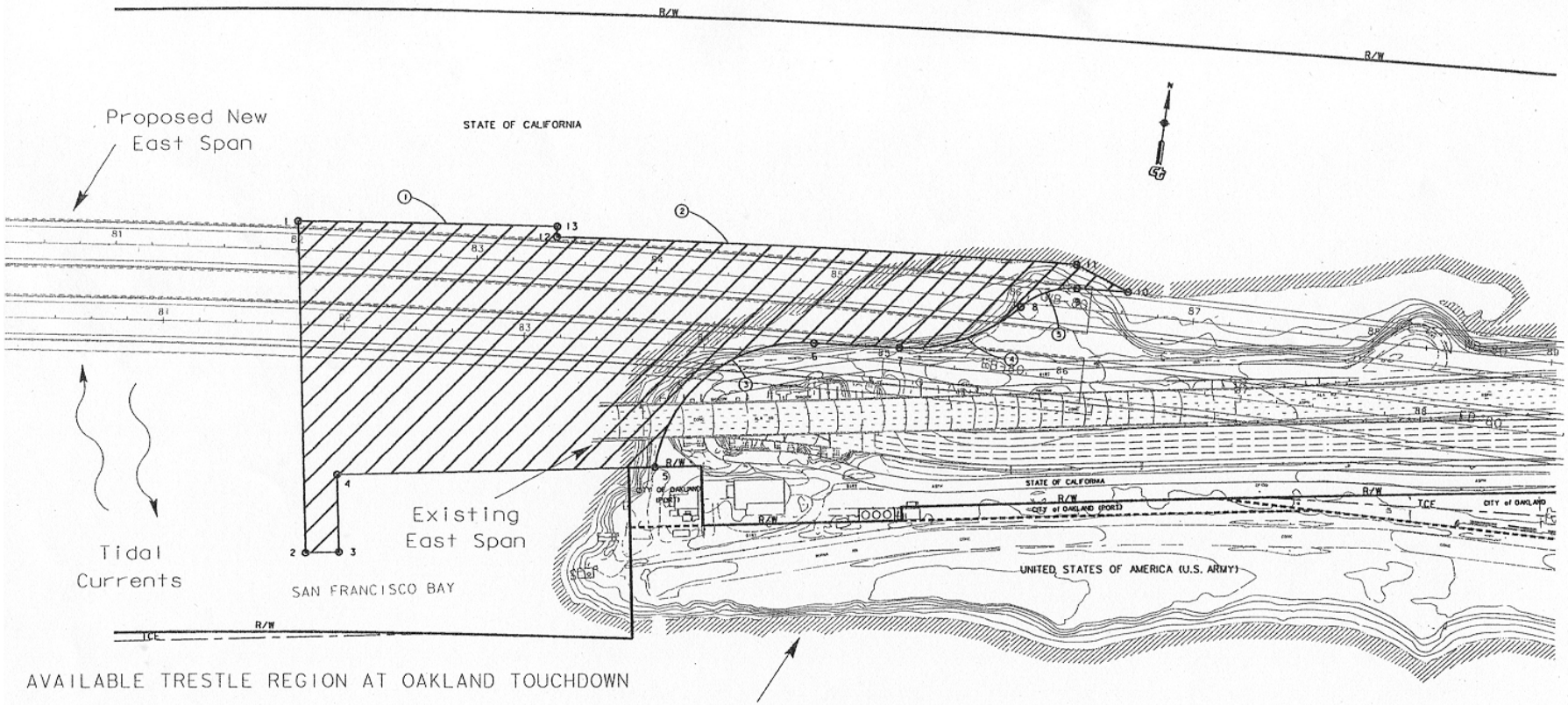
Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001

FIGURE 12



AVAILABLE TRESTLE REGION AT OAKLAND TOUCHDOWN

100 year flood elevation at
the Oakland Touchdown area is
9.4ft (2.9m) above MLLW

Legend:

Area available for temporary access trestles.

State of California Right of Way
Temporary Construction Easement
City of Oakland Right of Way

0 50 METER 100 150
0 100 200 FEET 300 400 500
SCALE

Trestle Region Limit

	N	E
1	648293.6	1838667.1
2	648111.6	1838699.3
3	648114.8	1838717.3
4	648157.2	1838709.8
5	648187.9	1838883.5
6	648269.2	1838960.4
7	648273.9	1839007.9
8	648306.4	1839071.4
9	648321.2	1839100.6
10	648323.3	1839129.0
11	648334.2	1839098.3
12	648306.5	1838810.2
13	648312.4	1838809.5

Trestle Region=40,000 m2

Trestle Region Curve Data

NO	R	Δ	T	L
①	6027.000	1°21'56"	71.823	143.640
②	6027.000	2°45'7"	144.769	289.482
③	82.804	84°58'59"	75.853	122.817
④	95.053	44°3'40"	38.463	73.097
⑤	42.981	44°49'55"	17.730	33.631

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT

Caltrans

Scale shown on Map

Conceptual Trestles at Oakland Touchdown

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

Name of Applicant - Caltrans

Waterway - San Francisco Bay

SF PM 7.6-8.7, Alam. PM 0.0-1.3
SF KP 12.2-14.3, Alam. KP 0.0-2.1

Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

Jan 2001

FIGURE 13

ATTACHMENT 1

DETERMINATION OF CONSISTENCY WITH THE COASTAL ZONE MANAGEMENT PLAN

GRAY DAVIS, Governor

N FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
TY VAN NESS AVENUE, SUITE 2011
FRANCISCO, CALIFORNIA 94102-6080
NE: (415) 557-3686

February 4, 2000

DSM

Mr. Dennis Mulligan
Deputy District Director
California Department of Transportation
District 04
P. O. Box 23660
Oakland, California 94623-0660

SUBJECT: Request for Preliminary Determination of Consistency with the Coastal Zone Management Plan; San Francisco –Oakland Bay Bridge, East Span

Dear Mr. Mulligan:

This letter is in response to your request for a Consistency Determination for the San Francisco-Oakland Bay Bridge, East Span to be constructed in Alameda and San Francisco Counties.

The BCDC Management Program provides that consistency matters will be handled as much as possible like permits. Section 930 of the Federal regulations on consistency also provides for consistency determinations "for every major funding phase of the Federal assistance activity which entails the consideration of new information not previously reviewed." I, therefore, believe I can comply with your request, but only under the following conditions:

1. This request comes at the environmental document stage and, because the staff rather than the Commission normally comments on projects at this stage, I believe I can make this determination at this time. However, while my determination is based on the McAteer-Petris Act, the Bay Plan, and the Commission's Management Program, it is, like staff comments on environmental documents generally, a staff determination only. A further and final Commission decision on the project and its consistency with the BCDC Management Program will be made at the permit application stage; and

2. This Determination is based upon and goes no further than the information contained in the Environmental Impact Statement. In particular, you have indicated, and the assumptions and uncertainties in the Environmental Impact Statement confirm, that the design of the bridge and its precise location are not final. While the information in the environmental Impact Statement permits me to conclude that a bridge can probably be constructed in this area in a manner consistent with the BCDC Management Program, this determination

does not mean that the design proposed in the Environmental Impact Statement is consistent with the Program. Our comments later on in this letter elaborate further on our concerns in this regard.

Preliminary Comments on Fill for the Bridge

The proposed project would involve the placement of fill both in and over areas within the Commission's "bay" jurisdiction. The Commission's law and plan restrict fill to water-oriented uses, limit any fill placed to the minimum fill necessary, and require that the fill be designed to minimize impacts to existing wetland resources. The Commission's law defines bridges as a water-oriented use that can be permitted on fill. The staff believes that a bridge can be designed at this location that minimizes fill and impacts to the Bay. The staff has also reviewed proposed mitigation for the unavoidable adverse impacts and, while recognizing that much of the details of the mitigation plan need refinement, believe that a mitigation program can be designed at the proposed mitigation site that will appropriately offset the adverse impacts of fill placed for the bridge.

Preliminary Comments on Proposed Public Access

The Commission's law also requires that projects the Commission authorizes must provide the maximum feasible public access to and along the Bay consistent with the project. The Department of Transportation (CalTrans) is proposing to provide a bicycle/pedestrian path on the southern edge of the new San Francisco-Oakland Bay Bridge. Although details of the public access are still being developed and details concerning how the path will connect to existing shoreline access areas remain to be worked out, the Commission staff believes that the proposed public access would be located at the most desirable location for public access across the bridge, and that the public access across the bridge can be appropriately connected to shoreline access areas. We also believe that the rail height and design of the new bridge can be designed so that it affords views of the Bay, as required by the San Francisco Bay Plan policies on Appearance, Design, and Scenic Views.

To summarize, while these are staff comments only and a final Consistency Determination must await Commission approval of a permit for the new San Francisco-Oakland Bay Bridge East Span, the bridge design and location that CalTrans has presented to staff to date appears to be in general conformance with the Commission's law and policies. Its past performance on this project suggests that as the bridge design is refined, CalTrans is willing to work with Commission staff to assure that the design is fully consistent with the Commission's law and policies. Therefore, I believe that the project in concept, generally conforms to the Commission's amended coastal management program for San Francisco Bay.

I hope this letter clarifies our position. If you have any further questions, please contact Art Duffy of our staff at (415) 557-8766.

Sincerely,

WILL TRAVIS
Executive Director

ATTACHMENT 2

FLOODPLAIN ANALYSIS

The following information is presented in the Location Hydraulic Study, 1998, completed for the East Span Project.

1 Purpose

A Location Hydraulic Study was prepared to assess the hydraulic impacts of the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (East Span Project). This project specific document is required for project work to bridges over waterways. The purpose of the East Span Project is to maintain a vehicular connection between Yerba Buena Island (YBI) in San Francisco and the SFOBB Toll Plaza in Oakland that will be immediately serviceable in the event of a maximum credible earthquake (MCE). The project would meet current standards for traffic operations and safety to the maximum extent feasible, benefiting the approximately 272,000 vehicles using the bridge each day.

2 Watershed Characteristics

2.1 Drainage Area

As the primary point of outfall to the ocean for a large portion of California, the San Francisco Bay has a drainage area of several thousand square miles. For the East Span Project, the floodwaters in the Bay are characterized better in relation to the ocean tides.

3 Hydrology

The hydrology for the East Span Project is based on the data presented by the U.S. Army Corps of Engineers (ACOE) in a report dated October 1984, entitled *San Francisco Bay, Tidal Stage vs. Frequency Study*, and in the *Alameda and San Francisco County Flood Insurance Studies*.

3.1 Flood Flows

Because of the bridge type and location of the East Span in relation to the tributary streams to the San Francisco Bay, the influence of the flood flows on the structure is minimal. The bridge has long spans clearing the entire waterway with no encroachments at the bridge ends. Flood flows are not defined beneath the East Span and the floodplain impacts relative to the flood flows are not able to be determined. What is of concern at the bridge site is the influence of the tides and the impacts the bridge replacement may have on the tides.

4 Floodplain Impacts

For this project, the floodplain can be described as elevation achieved by a defined high tide in San Francisco Bay. That defined high tide elevation can be compared to the footprint of the existing structure, the new structure, and the impacts to the floodplain evaluated.

A discussion of the following items is included in the Location Hydraulic Study as required in the Federal Regulation 23 CFR 650A:

Table 4-1

Summary of Floodplain Risks and Analysis for East Span Project

Is the action a significant longitudinal encroachment?	**NO**
Are the risks associated with the action significant?	**NO**
Will the action support probable incompatible floodplain development?	**NO**
Is the action a significant floodplain encroachment?	**NO**
Are non-routine measures required to minimize floodplain impacts associated with the action?	**NO**
Are there significant impacts on natural and beneficial floodplain values?	**NO**
Are non-routine measures required to restore and preserve the natural and beneficial floodplain values impacted by the action?	**NO**

Source: Parsons Brinckerhoff, September 1998.

Is the action a significant longitudinal encroachment?

The new east span could not be considered a longitudinal encroachment to the high tide waters.

The westbound deck of the new east span at the Oakland Touchdown area will be aligned over a portion of the shoreline and partially into the waters of the Bay. This segment will be an elevated structure on engineered fill.

Are the risks associated with the action significant?

For the East Span Project, the risks associated with the action are not significant.

Risk shall mean the consequences associated with the probability of flooding attributable to an encroachment. It shall include the potential for property loss and hazard to life during the service life of the highway.

Will the action support probable incompatible floodplain development?

This action will not support incompatible floodplain development.

The project is a replacement of an existing structure with no increase in traffic capacity. Provisions are incorporated into the new bridge for a pedestrian/bicycle crossing. New

bikeways to/from the Oakland Touchdown area would allow greater exposure to, and encourage appreciation of, the floodplain.

Is the action a significant floodplain encroachment?
The new east span could not be considered a significant floodplain encroachment to the high tide waters.

Are non-routine measures required to minimize floodplain impacts associated with the action?
There are no identified significant impacts to the floodplain. No non-routine measures are required.

Are there significant impacts on natural and beneficial floodplain values?
There are no anticipated significant impacts to the natural and beneficial floodplain values as a result of the project. Environmental technical studies were conducted to analyze potential impacts.

Natural and beneficial floodplain values shall include but are not limited to: fish, wildlife, plants open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge.

For the replacement span, the width of each of the parallel-elevated structures is wider due to the two additional shoulders for each direction of travel. The width of the at-grade highway will be no wider than the existing because dual shoulders already exist. The location of the roadway for the new bridge will move laterally slightly but the ultimate footprint should be no wider. Areas of the existing highway pavement that are outside of the new footprint will be returned to a natural or landscaped area to the maximum extent feasible. For the elevated portion of the bridge the only long-term impacts will be at the location of the piles. For the new at-grade roadway there may be some areas impacted, but returning paved areas to a more natural state would offset this.

Are non-routine measures required to restore and preserve the natural and beneficial floodplain values impacted by the action?
There are no identified significant impacts to the natural and beneficial floodplain values. No non-routine measures are required.

As part of the design and construction of the project, lands which are impacted by the new footprint on the Oakland Touchdown area will be offset by other areas occupied by existing highway which will revert to natural or landscaped area.

ATTACHMENT 3

SECTION 7 CONSULTATION FROM NATIONAL MARINE FISHERIES SERVICE AND US FISH AND WILDLIFE SERVICE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Sacramento Field Office
3310 El Camino Avenue, Suite 130
Sacramento, California 95821-6340

IN REPLY REFER TO:

1-1-97-F-107

June 24, 1997

Mr. W.R. Till
Chief, Bridge Section
U.S. Coast Guard
Bldg. 50-6 Coast Guard Island
Alameda, CA 94501-5100

Subject: Formal Section 7 Consultation on the Oakland Bay Bridge Seismic Retrofit, San Francisco and Alameda Counties, California

Dear Mr. Till:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on the Service's review of the proposed Oakland Bay Bridge (Bridge) seismic retrofit and related activities, and its effects on the endangered American peregrine falcon (*Falco peregrinus anatum*) in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act). Your request for formal consultation was received on January 3, 1997.

This biological opinion is based on information provided in the November 7, 1996, biological assessment (BA) prepared by Caltrans (1996), personal communications with Brian Walton of the Santa Cruz Predatory Bird Research Group (SCPBRG), the final rule listing the peregrine falcon (35 CFR 16047), the proposed rule to delist the species (50 CFR 34406), and the Recovery Plan for the Peregrine Falcon (USFWS 1982). A complete administrative record of this consultation is on file in this office.

BIOLOGICAL OPINION

Description of the Proposed Action

The U.S. Coast Guard proposes to authorize the California Department of Transportation (Caltrans) to proceed with a seismic retrofit of the Oakland Bay Bridge. The seismic retrofit will occur through 21 individual projects, as described in the biological assessment. The projects are grouped into units: east bay, west bay, and the west bay approach. Project 1, at the east bay approach, is currently under construction. Project 11 is at the west bay approach and is completed. Project 21 has been included in Project 3. This biological opinion addresses the remaining 18 projects. In summary, the remaining projects that may affect the peregrine falcon involve foundation work on the footings of several piers and work on the superstructures, road beds and footings of over-water portions of the bridge. For a complete description of project activities, refer to the biological assessment (Caltrans 1996).

Project impacts will be minimized by implementing a construction restraint from February through mid-June. In addition, any peregrine falcon chicks will

be removed by the SCPBRG. Chicks will be reared and released elsewhere. Activities will avoid a 300 foot distance from the actual nest locations.

Species Account and Environmental Baseline

The American peregrine falcon was federally listed as endangered in 1970 (35 FR 16047). The following is a discussion of peregrine falcon biology, population status and trends. For further information refer to the *Pacific Coast Recovery Plan for the American Peregrine Falcon* (USDI 1982)

As stated in the *Pacific Coast Recovery Plan for American Peregrine Falcon* (USDI 1982), American peregrine falcons nest almost exclusively on cliffs, usually near water. Preferable sites are sheer cliffs 150 feet or more in height. The cliff usually has a small cave or overhung ledge large enough to contain three or four full-grown nestlings. Several holes or ledges that can be used in alternate years are apparently not an absolute requirement, but probably increase the suitability of the cliff. Peregrines have nested from sea level to over 11,000 feet, anywhere suitable cliffs are found, except in the desert.

Bridges and tall buildings have become surrogate cliffs and are utilized by peregrine pairs for nesting, roosting and foraging (Hickey and Anderson 1969). Peregrines' use of bridges includes (1) year round occupation, with the bridges used as hunting perches, night roosts, perches to escape inclement weather, or other perching, (2) nesting by pairs from 1 February through 31 July, and (3) irregular occupation by immature peregrines, "floating" adults seeking vacant territories, or wintering migrants from northern populations (Walton 1997). In the case of nesting pairs, no nest is built by the falcons; eggs are laid in debris on ledges or in cavities (Walton 1997). Nest sites are almost invariably below the roadway, and often on the portion of the bridge that is highest above the water. These latter "sites" can be repeated many times on any one bridge. Typically, only one pair will occupy a bridge (Walton 1997).

Peregrines compete with other raptors and ecologically similar birds for cliff nests. For example, golden eagles (*Aquila chrysaetos*), red-tailed hawks (*Buteo jamaicensis*), prairie falcon (*Falco mexicanus*), turkey vultures (*Cathartes aura*), and ravens (*Corvus corax*) all nest in similar situations and may even use abandoned peregrine eyries. Peregrines defend the nesting territory vigorously against intrusion by some of these species. It is not clear, however, if this is a response to nest-site competition or is a response of perceived threats to adults or young.

Availability of nest sites may be a limiting factor in some areas. For example, peregrines historically nested all along the coast in southern California. Today, houses and other buildings are located on the tops of these sea cliffs, and recreation abounds in their vicinity to such an extent that few suitable nesting areas remain. Partly as a result of this, peregrine falcons currently do not nest along the coast from near Santa Barbara south to the Mexican border. Further loss of historical peregrine nest sites could limit recovery of the species in some areas.

Foraging areas are associated with each nest territory. This generally includes wooded areas, marshes, open grasslands, coastal strands and bodies of water. The peregrine falcon is a diurnal raptor that feeds almost entirely on small birds. Wooded areas near water attract a diverse avifauna, and bodies of water provide open areas where prey cannot easily escape attack. Marshes, savannas, and shorelines are also common foraging areas. Loss of foraging

areas through modification of habitat may be a problem. In many areas human encroachment has caused nests to be abandoned, but it is difficult to separate the effects of habitat loss from the effects of disturbances to the birds themselves.

The species suffered a dramatic population crash in the 1960s correlated with the introduction and use of organo-chlorine pesticides in the middle and late 1940s. About 220 historical eyries were known in California. By 1970, only four nesting locations in California were active. By the mid 1970s, the remaining core population in the State was estimated to be 20 to 30 pairs in the inner north coastal ranges, with 5 to 10 pairs distributed throughout the rest of the State.

A Recovery Plan for the species was adopted in 1982. Under the plan, the first phase allowed various techniques to be used to increase the peregrine falcon populations. In the San Francisco Bay Area, researchers from the SCPBRG coordinated egg removals, fostering, cross fostering and captive breeding efforts. American peregrine falcons in the western United States have re-expanded in recent decades. In 1992, 113 pairs were known in California, most of which occurred in the northwestern portion of the State. On June 30, 1995, the Service published an advance notice of a proposal to remove the American peregrine falcon from the list of Endangered and Threatened wildlife (50 FR 34406); according to this notice, the current total for the Pacific population stands at approximately 224 pairs.

There are currently several pairs of peregrine falcons within the vicinity of the Oakland Bay Bridge. The Dumbarten Bridge supports nesting peregrine falcons (B. Walton, pers. comm., 1997), peregrines have been observed utilizing the Hayward-San Mateo Bridge for perching and foraging, and nesting attempts have been documented at the Richmond-San Rafael Bridge (Caltrans 1997). The Oakland Bay Bridge has two pairs of nesting peregrine falcons; one pair nests on the west bay spans and another pair nests on the east bay side. The biological assessment provides nest histories of both pairs from the 1980s through the 1996 breeding season (Caltrans 1996).

Effects of the Action

A review of the literature indicates that disturbance can negatively affect avian productivity. Specifically, studies on waterfowl, colonial seabirds and raptors have shown that disturbance can cause nest abandonment, egg mortality due to exposure from flushing, increased predation of eggs and hatchlings, depressed feeding rates, increased adult energy demands, or avoidance of otherwise suitable habitat (Anderson and Keith 1980, Burger 1981, Pierce and Simons 1986, Knight and Skagen 1988, Henson and Grant 1991). Recurring disturbance, such as annual events, may cause a shift in breeding activity over time. Individuals that succeed in their reproductive efforts in spite of noise disturbance may not return to the same successful location the following year due to anticipated disturbance.

The use of motorized equipment during the breeding season within one half mile of suitable nesting habitat has the potential to disrupt essential breeding behaviors by: (1) causing abandonment of the breeding effort by failure to initiate nesting; (2) copulation disturbances resulting in infertile eggs; (3) causing abandonment of the breeding effort by failure to complete incubation; (4) egg breakage or death; (5) death of young in the nest because of inability to thermoregulate; (6) disrupting nesting activities such as feeding young; (7) causing premature fledging and dispersal of juveniles;

(8) stress to adults resulting in less hunting and starvation of young; and
(9) various other impacts.

The effects of disturbances on peregrine falcons vary with the timing of the disturbance and the proximity to the eyrie. The peregrine falcon is particularly sensitive to disturbance near the nest cliff during the breeding season. In early spring during courtship, disturbed birds are particularly liable to desert an area. Part of the male's courtship ritual involves ledge displays to attract a female to a particular ledge for use as a nest site (Nelson 1970). The female will accept or reject the ledge, and it is believed that this is based largely on the protection from predators the ledge offers. If disturbance occurs near the ledge, the female will often reject the ledge and search for a better one. If human activities are centered generally throughout the nesting area, the entire territory may be abandoned, and the pair may not nest (Hickey 1942, Bond 1946, Fyfe and Olendorff 1976). Peregrines have abandoned their nest ledges after a single short visit by a human before or during egg laying (Fyfe and Olendorff 1976).

After the eggs are laid, the parents are less likely to abandon their nest, but many still do so. After the eggs hatch, but before the young fledge, the parents are most likely to "sit tight" and defend the nest vigorously rather than abandon it. Another critical period occurs just prior to fledgling by the young. Disturbance at the nest may cause the nestlings to fledge prematurely, which may result in injury or death, or expose them to predators.

The birds utilizing San Francisco Bay area bridges, such as the Oakland Bay Bridge, may be accustomed to higher levels of noise disturbances than other birds nesting within the range. However, the construction activities are expected to increase noise levels and visual distractions to a higher degree than that associated with typical road and boat traffic. Disturbances to peregrine falcons on the Oakland Bay Bridge have been documented in association with past bridge repair work. The pairs on the bridge have defended their nest areas, during their reproductive period, by mobbing intruders and vocalizing. Disturbances other than retrofit activities, such as bridge inspections, maintenance and painting are continuous and therefore, represent a high degree of disturbance to the birds. Other retrofit construction projects (i.e., Richmond-San Rafael Bridge, Hayward-San Mateo Bridge) occurring simultaneously within the San Francisco Bay area may increase the cumulative effects on peregrine falcons.

Peregrines rarely return to their own nest to breed with their parents or siblings, instead most move 10 to 250 miles and breed with unrelated birds (Walton 1997). Thus, falcons coming to California bridges in the future are unlikely to be offspring fledged from nests on the bridge being impacted. This means that the productivity of an individual bridge is not critical to continued occupancy of that specific territory or bridge. Hence, bridges have remained occupied now for many years despite higher than normal mortality of fledglings that occurs because of drowning and car collisions. For this reason, moving broods to hack sites has been suggested by some biologists as a way to salvage young peregrines and allow them to fledge under safer conditions.

Hacking of peregrine falcons, as committed to by Caltrans via their contract with the SCPBRG, will greatly enhance peregrine productivity and re-occupancy of many areas of historic range in California. According to Walton (pers. comm. 1997), almost all birds on buildings and bridges initially came from these releases, although currently most falcons come from wild nests. In

addition to hacking of young birds, the limited operating period and 300 foot avoidance zone will further minimize the effects of incidental take.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur within the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Conclusion

After reviewing the current status of the American peregrine falcon, the environmental baseline, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that the seismic retrofit of the Bridge, as proposed, is not likely to jeopardize the continued existence of the peregrine falcon. This determination is based on implementation of the conservation measures to minimize harm that are outlined in your biological assessment.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit take of endangered and threatened species, respectively, without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns, including breeding, feeding, or sheltering. Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement.

Amount or Extent of Take

The Service has determined that incidental take of reproduction associated with the peregrine falcon territories within the vicinity of the Bridge is likely to occur throughout the project duration (3 years). The Service estimates that all progeny from one nesting pair of peregrine falcons will be subject to take in the form of harm, harassment, or capture for a period of three years.

Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the American peregrine falcon or a reduction of opportunity for recovery of the species.

Reasonable and Prudent Measures

The Service determines that no reasonable and prudent measures are necessary to minimize the impact of incidental take of peregrine falcons. The Coast Guard, however, has a continuing duty to regulate the activity covered by this incidental take statement. If the Coast Guard fails to require the applicant to adhere to the measures proposed in the project description, the protective coverage of section 7(o)(2) may lapse.

Reporting Requirements

The Service has an established protocol for the handling and analysis of dead, sick or injured listed species. Any dead or injured peregrine falcons must be reported to the Service's Law Enforcement Division (916/979-2986) within 24 hours, and turned over as soon as possible to the Law Enforcement Division or to a game warden or biologist of the California Department of Fish and Game for care or analysis. The Service is to be notified in writing within three working days of the accidental death of, or injury to, any peregrine falcon, or of the finding of any dead or injured peregrine falcon during construction operations. Notification must include the date, time, and location of the incident or discovery of a dead or injured peregrine falcon, as well as any pertinent information on circumstances surrounding the incident or discovery. The Service contact for this written information is the Field Supervisor (916/979-2710).

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the actions as outlined in the U.S. Coast Guard's December 26, 1996, request. The incidental take permitted in accordance with this project is authorized through the breeding season of 2000. Any maintenance activities anticipated after will require reinitiation of consultation on this project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have questions regarding this response, please contact Ms. Ina Pisani at (916)979-2725.

Sincerely,

Ina C. Pisani

for Wayne S. White
Field Supervisor

cc: AES-Portland, OR (Div. of Consultation & Conservation Planning)
Caltrans, Oakland, CA ATTN: Chuck Morton

Literature Cited

Anderson, D. W., and J. O. Keith. 1980. The human influence on seabird nesting success: conservation implications. Bill. Conserve. 18:65-80.

Bond, R.M.S. 1946. The peregrine population of western North America. Condor 48:101-116.

Burger, J. 1981. The effect of human activity on birds at a coastal bay. Bill. Conserve. 21:231-241.

California Department of Transportation. 1996. Final Natural Environment Study/Biological Assessment for the Richmond-San Rafael Bridge Seismic Retrofit.

_____. 1996b. Biological assessment for San Francisco/Oakland Bay Bridge Seismic Retrofit.

Fyfe, R.W. and R.R. Olendorff. 1976. Minimizing the dangers of nesting studies to raptors and other sensitive species. Canadian Wildl. Serv. Occas. Paper No. 23. Ottawa. 16 pp.

Henson, P., and T. A. Grant. 1991. The effects of human disturbance on trumpeter swan breeding behavior. Wildl. Soc. Bull. 19:248-257.

Hickey, J.J. 1942. Eastern population of the duck hawk. Auk 59:176-204.

Hickey, J.J. and D.W. Anderson, ed. 1969. The peregrine falcon life history and population literature. University of Wisconsin Press.

Knight, R. L., and S. K. Knight Skagen. 1988. Effects of recreational disturbance on birds of prey: a review. Pages 355-359 in R. L. Glinski et al., eds. Proceedings of the Southwest Raptor Management Symposium and Workshop. Natl. Wildl. Fed., Washington, D.C.

Nelson, R.W. 1970. Some aspects of the breeding behavior of Peregrine Falcons on Langara Island, B.C. Univ. Calgary. (Unpub. Masters Thesis). 305 pp.

Pierce, D. J. and T. R. Simons. 1986. The Influence of Human Disturbance on Tufted Puffin Breeding Success. Auk 103:214-216.

USDI. Fish and Wildlife Service. 1982. Pacific Coast Recovery Plan for the American Peregrine Falcon. Portland, OR: U.S. Department of Interior, Fish and Wildlife Service. 87 pp.

USDI. 1970. Final Rule for the determination of endangered status for the American Peregrine Falcon. 35 Federal Register 16047, October 13, 1970.

USDI. 1995. Advance Notice of a Proposal to Remove the American Peregrine Falcon From the List of Endangered and Threatened Wildlife. 50 Federal Register 34406, June 30, 1995.

: OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

?ARTMENT OF TRANSPORTATION
3660
,ND, CA 94623-0660
286-4444
510) 286-4454

August 18, 1997

Ala/SF 80
01200K

Mr. James Bybee
National Marine Fisheries Service
777 Sonoma Avenue, Room 325
San Ramon, CA 95405

Dear Mr. Bybee:

Special Status Species List for Construction of a New Eastern Span - San Francisco-Oakland Bay Bridge

The California Department of Transportation (Caltrans) is requesting a list of endangered, threatened, and candidate species that may be present in the vicinity of the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Retrofit Project, pursuant to Section 7 of the Endangered Species Act, as amended. Caltrans has previously evaluated the seismic retrofit of the existing structure. Due to the cost associated with that project, the alternative of replacing the existing structure with a new span is also being considered. Alternatives that will be evaluated potentially include different parallel alignments to the north and south, and various structural designs. The new span would be constructed from east of the Toll Plaza in Alameda County to Yerba Buena Island in San Francisco County. The project is located entirely within the USGS Oakland East 7.5 minute quadrangle. Construction will require work within the Bay waters as well as at the bridge abutments and approaches.

If you have any questions regarding this request, please call Mara Melandry at (510) 286-5582. Thank you.

Sincerely,

HARRY Y. YAHATA
District Director

By
Mara Melandry
ROBERT GROSS

for Office Chief
Office of Environmental Planning South

.TE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

EPARTMENT OF TRANSPORTATION
23660
.LAND, CA 94623-0660
)) 286-4444
) (510) 286-4454

August 18, 1997

Ala/SF 80
01200K

Mr. Joel Medlin
Field Supervisor
U.S. Fish and Wildlife Service
Sacramento Field Office
3310 El Camino Avenue, Suite 130
Sacramento, CA 95821-6340

Dear Mr. Medlin:

Special Status Species List for Construction of a New Eastern Span - San Francisco-Oakland Bay Bridge

The California Department of Transportation (Caltrans) is requesting a list of endangered, threatened, and candidate species that may be present in the vicinity of the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Retrofit Project, pursuant to Section 7 of the Endangered Species Act, as amended. Caltrans has previously evaluated the seismic retrofit of the existing structure. Due to the cost associated with that project, the alternative of replacing the existing structure with a new span is also being considered. Alternatives that will be evaluated potentially include different parallel alignments to the north and south, and various structural designs. The new span would be constructed from east of the Toll Plaza in Alameda County to Yerba Buena Island in San Francisco County. The project is located entirely within the USGS Oakland East 7.5 minute quadrangle. Construction will require work within the Bay waters as well as at the bridge abutments and approaches.

If you have any questions regarding this request, please call Mara Melandry at (510) 286-5582. Thank you.

Sincerely,

HARRY Y. YAHATA
District Director

By

ROBERT GROSS
Mara Melandry
for Office Chief
Office of Environmental Planning South

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
777 Sonoma Ave. Rm 325
Santa Rosa. CA 95404

August 26. 1997 F/SW03:DWC

Mr. Harry Yahata
Cal Dept of Transportation
Box 23660
Oakland CA 94623-0660

Dear Mr Yahata:

Thank you for your letter of August 18, 1997 regarding the presence of Federally listed (or proposed for listing) threatened or endangered species or critical habitat that may be affected by construction of a new eastern span of the San Francisco - Oakland Bay Bridge .

Available information indicates that the following species may occur in the project area:

Sacramento River winter-run chinook salmon (Oncorhynchus tshawytscha)- endangered
steelhead (Oncorhynchus mykiss) - Central California Coast ESU - threatened
steelhead (Oncorhynchus mykiss) - Central Valley ESU - proposed as endangered

The site is also located within the designated critical habitat for winter-run chinook salmon (58 FR 33212).

In addition, chinook salmon may occur in the project area and NMFS is currently conducting a status review pursuant to the Endangered Species Act for this species throughout its range in California, Oregon, Idaho, and Washington.

The U.S. Fish and Wildlife Service (USFWS) may also have listed species or critical habitat under its jurisdiction in the project area. Please contact Mr. Joel Medlin, Field Supervisor, USFWS, at 3310 El Camino Avenue, Room 130, Sacramento, California 95821, or (916) 979-2710, regarding the presence of listed species or critical habitat under USFWS jurisdiction that may be affected by your project.

If you have questions concerning these comments, please contact Dan Cheng of my staff at (707) 575-6069.

Sincerely,

James R. Bybee
Northern Area
Environmental Coordinator

cc: J. Slawson, NMFS Long Beach

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
3310 El Camino Avenue, Suite 130
Sacramento, California 95821-6340

IN REPLY REFER TO:
1-1-97-SP-2027

August 29, 1997

Robert Gross, Office Chief
Office of Environmental Planning South
(Attn: Mara Melandry)
Department of Transportation
Box 23660
Oakland, California 94623-0660

Subject: Species Lists for San Francisco-Oakland Bay Bridge East Span Seismic Retrofit Project, San Francisco County, CA

Dear Mr. Gross:

As requested by letter from your agency dated August 18, 1997, you will find enclosed lists of sensitive species that may be present in *or may be affected by* projects in the subject project area (see Enclosure A). These lists fulfill the requirement of the Fish and Wildlife Service (Service) to provide species lists pursuant to section 7(c) of the Endangered Species Act of 1973, as amended (Act).

The animal species on the Enclosure A quad list are those species we believe may occur within, *or be affected by projects within*, the USGS Oakland East Quad, where your project is planned.

Any plants on the Enclosure A quad list are those *that have actually been observed* in the project quad. Plants on the county list may also occur in the quad where your project is planned.

Some of the species listed in Enclosure A may not be affected by the proposed action. A trained biologist or botanist, familiar with the habitat requirements of the listed species, should determine whether these species or habitats suitable for these species may be affected by the proposed action. For plant surveys, the Service recommends using the enclosed Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Species (Enclosure C).

Some pertinent information concerning the distribution, life history, habitat requirements, and published references for the listed species is available upon request. This information may be helpful in preparing the biological assessment for this project, if one is required. Please see Enclosure B for a discussion of the responsibilities Federal agencies have under section 7(c) of the Act and the conditions under which a biological assessment must be prepared by the lead Federal agency or its designated non-Federal representative.

Formal consultation, pursuant to 50 CFR § 402.14, should be initiated if you determine that a listed species may be affected by the proposed project. If you determine that a proposed species may be adversely affected, you should consider requesting a conference with our office pursuant to 50 CFR § 402.10. Informal consultation may be utilized prior to a written request for formal consultation to exchange information and resolve conflicts with respect to a listed species. If a biological assessment is required, and it is not initiated within 90 days of your receipt of this letter, you should informally verify the accuracy of this list with our office.

Candidate species are currently being reviewed by the Service and are under consideration for possible listing as endangered or threatened. Candidate species have no protection under the Endangered Species Act, but are included for your consideration as it is possible that one or more of these candidates could be proposed and listed before the subject project is completed. Should the biological assessment reveal that candidate species may be adversely affected, you may wish to contact our office for technical assistance. One of the potential benefits from such technical assistance is that by exploring alternatives early in the planning process, it may be possible to avoid conflicts that could otherwise develop, should a candidate species become listed before the project is completed.

In the Federal Register of February 28, 1996, the Service changed its policy on candidate species. The term *candidate* now strictly refers to species for which the Service has on file enough information to propose listing as endangered or threatened. Former *category 2 candidate* species - species for which listing is possibly appropriate but for which the Service lacks sufficient information to support a listing proposal - are now called *species of concern.* They are no longer monitored by the Service. However we have retained them on the enclosed list for general information. We encourage consideration of them in project planning, as they may become candidate species in the future.

If the proposed project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by the U.S. Army Corps of Engineers (Corps), a Corps permit will be required, pursuant to section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act. Impacts to wetland habitats require site specific mitigation and monitoring. You may request a copy of the Service's General Mitigation and Monitoring Guidelines or submit a detailed description of the proposed impacts for specific comments and recommendations. If you have any questions regarding wetlands, contact Mark Littlefield at (916) 979-2113.

Please contact Mr. Michael Thabault at (916) 979-2752 if you have any questions regarding the attached list or your responsibilities under the Endangered Species Act. For the fastest response to species list requests, address them to the attention of the section 7 office assistant at this address.

Sincerely,

Patrick Leonard

for Wayne S. White
Field Supervisor

Enclosures

ENCLOSURE A

Endangered and Threatened Species that May Occur in or be Affected by Projects in the Area of the Following California County or Counties

August 29, 1997

SAN FRANCISCO COUNTY

Listed Species

Mammals

- salt marsh harvest mouse, *Reithrodontomys raviventris* (E)
- Steller (=northern) sea-lion, *Eumetopias jubatus* (T)

Birds

- American peregrine falcon, *Falco peregrinus anatum* (E)
- California brown pelican, *Pelecanus occidentalis californicus* (E)
- California clapper rail, *Rallus longirostris obsoletus* (E)
- western snowy plover, *Charadrius alexandrinus nivosus* (T)
- bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

- leatherback turtle, *Dermochelys coriacea* (E)
- loggerhead turtle, *Caretta caretta* (T)
- green turtle, *Chelonia mydas (incl. agassizi)* (T)
- olive (=Pacific) ridley sea turtle, *Lepidochelys olivacea* (T)

Amphibians

- California red-legged frog, *Rana aurora draytonii* (T)

Fish

- tidewater goby, *Eucyclogobius newberryi* (E)
- winter-run chinook salmon, *Oncorhynchus tshawytscha* (E)
- winter-run chinook salmon critical habitat, *Oncorhynchus tshawytscha* (E)
- delta smelt, *Hypomesus transpacificus* (T)
- Central California steelhead, *Oncorhynchus mykiss* (T)

Invertebrates

- mission blue butterfly, *Icaricia icarioides missionensis* (E)
- San Bruno elfin butterfly, *Incisalia mossii bayensis* (E)

Plants

- Presidio manzanita, *Arctostaphylos hookeri ssp. ravenii* (E)

SAN FRANCISCO COUNTY

Listed Species

Plants

- Presidio clarkia, *Clarkia franciscana* (E)
- Marin dwarf-flax, *Hesperolinon congestum* (T)
- marsh sandwort, *Arenaria paludicola* (E)
- beach layia, *Layia carnosa* (E)

Proposed Species

Fish

- Sacramento splittail, *Pogonichthys macrolepidotus* (PT)

Plants

- San Francisco lessingia, *Lessingia germanorum* (PE)

Candidate Species

Amphibians

- California tiger salamander, *Ambystoma californiense* (C)

Species of Concern

Mammals

- greater western mastiff-bat, *Eumops perotis californicus* (SC)
- long-eared myotis bat, *Myotis evotis* (SC)
- fringed myotis bat, *Myotis thysanodes* (SC)
- long-legged myotis bat, *Myotis volans* (SC)
- Yuma myotis bat, *Myotis yumanensis* (SC)
- San Francisco dusky-footed woodrat, *Neotoma fuscipes annectens* (SC)
- Pacific western big-eared bat, *Plecotus townsendii townsendii* (SC)
- salt marsh vagrant shrew, *Sorex vagrans halicoetes* (SC)

Birds

- tricolored blackbird, *Agelaius tricolor* (SC)
- Bell's sage sparrow, *Amphispiza belli belli* (SC)
- ferruginous hawk, *Buteo regalis* (SC)
- little willow flycatcher, *Empidonax traillii brewsteri* (SC)
- saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)

SAN FRANCISCO COUNTY

Species of Concern

Birds

- black rail, *Laterallus jamaicensis* (SC)
- Alameda (South Bay) song sparrow, *Melospiza melodia pusillula* (SC)

Reptiles

- northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
- southwestern pond turtle, *Clemmys marmorata pallida* (SC)
- California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

- foothill yellow-legged frog, *Rana boylii* (SC)

Fish

- green sturgeon, *Acipenser medirostris* (SC)
- river lamprey, *Lampetra ayresi* (SC)
- Pacific lamprey, *Lampetra tridentata* (SC)
- longfin smelt, *Spirinchus thaleichthys* (SC)

Invertebrates

- Opler's longhorn moth, *Adela oplerella* (SC)
- sandy beach tiger beetle, *Cicindela hirticollis gravida* (SC)
- globose dune beetle, *Coelus globosus* (SC)
- Ricksecker's water scavenger beetle, *Hydrochara rickseckeri* (SC)
- bumblebee scarab beetle, *Lichnanthe ursina* (SC)

Plants

- San Francisco Bay spineflower, *Chorizanthe cuspidata var. cuspidata* (SC)
- San Francisco wallflower, *Erysimum franciscanum* (SC)
- fragrant fritillary, *Fritillaria liliacea* (SC)
- San Francisco gumplant, *Grindelia hirsutula var. maritima* (SC)
- Marin checkermallow, *Sidalcea hickmanii ssp. viridis* (SC)
- Mission Delores campion, *Silene verecunda ssp. verecunda* (SC)
- San Francisco owl's-clover, *Triphysaria floribunda* (SC)
- San Francisco manzanita, *Arctostaphylos hookeri ssp. franciscana* (SC)
- alkali milk-vetch, *Astragalus tener var. tener* (SC)
- compact cobweb thistle, *Cirsium occidentale var. compactum* (SC)
- Diablo rock-rose, *Helianthella castanea* (SC)

SAN FRANCISCO COUNTY

Species of Concern

Plants

Kellogg's (wedge-leaved) horkelia, *Horkelia cuneata ssp. sericea* (SC)

San Francisco popcornflower, *Plagiobothrys diffusus* (SC)

adobe sanicle, *Sanicula maritima* (SC)

coast lily, *Lilium maritimum* (SC)

KEY:

(E)	*Endangered*	Listed (in the Federal Register) as being in danger of extinction.
(T)	*Threatened*	Listed as likely to become endangered within the foreseeable future.
(P)	*Proposed*	Officially proposed (in the Federal Register) for listing as endangered or threatened.
(C)	*Candidate*	Candidate to become a *proposed* species.
(SC)	*Species of Concern*	May be endangered or threatened. Not enough biological information has been gathered to support listing at this time.
(*)	Possibly extinct.	
	Critical Habitat	Area essential to the conservation of a species.

ENCLOSURE A

Endangered and Threatened Species that May Occur in
or be Affected by Projects in the Following Selected Quads
August 29, 1997

QUAD : 465C OAKLAND EAST

Listed Species

Mammals

salt marsh harvest mouse, *Reithrodontomys raviventris* (E)

Birds

American peregrine falcon, *Falco peregrinus anatum* (E)

California brown pelican, *Pelecanus occidentalis californicus* (E)

California clapper rail, *Rallus longirostris obsoletus* (E)

bald eagle, *Haliaeetus leucocephalus* (T)

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

tidewater goby, *Eucyclogobius newberryi* (E)

Central California steelhead, *Oncorhynchus mykiss* (T)

Invertebrates

vernal pool fairy shrimp, *Branchinecta lynchi* (T)

Plants

robust spineflower, *Chorizanthe robusta* (E)

Presidio clarkia, *Clarkia franciscana* (E)

Proposed Species

Reptiles

Alameda whipsnake, *Masticophis lateralis euryxanthus* (PE)

Fish

Sacramento splittail, *Pogonichthys macrolepidotus* (PT)

Invertebrates

callippe silverspot butterfly, *Speyeria callippe callippe* (PE)

Plants

pallid manzanita (Alameda manzanita), *Arctostaphylos pallida* (PE)

QUAD : 465C OAKLAND EAST

Candidate Species

Mammals

San Joaquin Valley woodrat, *Neotoma fuscipes riparia* (C)

Amphibians

California tiger salamander, *Ambystoma californiense* (C)

Species of Concern

Mammals

greater western mastiff-bat, *Eumops perotis californicus* (SC)

long-eared myotis bat, *Myotis evotis* (SC)

fringed myotis bat, *Myotis thysanodes* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

San Francisco dusky-footed woodrat, *Neotoma fuscipes annectens* (SC)

San Joaquin pocket mouse, *Perognathus inornatus* (SC)

Pacific western big-eared bat, *Plecotus townsendii townsendii* (SC)

Alameda Island mole, *Scapanus latimanus parvus* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

Bell's sage sparrow, *Amphispiza belli belli* (SC)

ferruginous hawk, *Buteo regalis* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (SC)

saltmarsh common yellowthroat, *Geothlypis trichas sinuosa* (SC)

black rail, *Laterallus jamaicensis* (SC)

Alameda (South Bay) song sparrow, *Melospiza melodia pusillula* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)

southwestern pond turtle, *Clemmys marmorata pallida* (SC)

California horned lizard, *Phrynosoma coronatum frontale* (SC)

QUAD : 46SC OAKLAND EAST

Species of Concern

Amphibians

foothill yellow-legged frog, *Rana boylii* (SC)

western spadefoot toad, *Scaphiopus hammondii* (SC)

Invertebrates

Ricksecker's water scavenger beetle, *Hydrochara ricksecker*i (SC)

San Francisco lacewing, *Nothochrysa californica* (SC)

Plants

alkali milk-vetch, *Astragalus tener* var. *tener* (SC)

fragrant fritillary, *Fritillaria liliacea* (SC)

Diablo rock-rose, *Helianthella castanea* (SC)

Kellogg's (wedge-leaved) horkelia, *Horkelia cuneata ssp. sericea* (SC)

most beautiful (uncommon) jewelflower, *Streptanthus albidus ssp. peramoenus* (SC)

KEY:

(E)	*Endangered*	Listed (in the Federal Register) as being in danger of extinction.
(T)	*Threatened*	Listed as likely to become endangered within the foreseeable future.
(P)	*Proposed*	Officially proposed (in the Federal Register) for listing as endangered or threatened.
(C)	*Candidate*	Candidate to become a *proposed* species.
(SC)	*Species of Concern*	May be endangered or threatened. Not enough biological information has been gathered to support listing at this time.
(*)		Possibly extinct.
	Critical Habitat	Area essential to the conservation of a species.

Enclosure B

FEDERAL AGENCIES' RESPONSIBILITIES UNDER SECTIONS 7(a) and (c) OF THE ENDANGERED SPECIES ACT

SECTION 7(a) Consultation/Conference

Requires: (1) federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species; (2) Consultation with FWS when a federal action may affect a listed endangered or threatened species to insure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The process is initiated by the federal agency after determining the action may affect a listed species; and (3) Conference with FWS when a Federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat.

SECTION 7(c) Biological Assessment-Major Construction Activity[1]

Requires federal agencies or their designees to prepare a Biological Assessment (BA) for major construction activities. The BA analyzes the effects of the action[2] on listed and proposed species. The process begins with a Federal agency requesting from FWS a list of proposed and listed threatened and endangered species. The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the list, the accuracy of the species list should be informally verified with our Service. No irreversible commitment of resources is to be made during the BA process which would foreclose reasonable and prudent alternatives to protect endangered species. Planning, design, and administrative actions may proceed; however, no construction may begin.

We recommend the following for inclusion in the BA: an on-site inspection of the area affected by the proposal which may include a detailed survey of the area to determine if the species or suitable habitat is present; a review of literature and scientific data to determine species' distribution, habitat needs, and other biological requirement; interviews with experts, including those within FWS, State conservation departments, universities and others who may have data not yet published in scientific literature; an analysis of the effects of the proposal on the species in terms of individuals and populations, including consideration of indirect effects of the proposal on the species and its habitat; an analysis of alternative actions considered. The BA should document the results, including a discussion of study methods used, and problems encountered, and other relevant information. The BA should conclude whether or not a listed or proposed species will be affected. Upon completion, the BA should be forwarded to our office.

---

[1] A construction project (or other undertaking having similar physical impacts) which is a major federal action significantly affecting the quality of the human environment as referred to in NEPA (42 U.S.C. 4332(2)C).

[2] "Effects of the action" refers to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action.

Enclosure C

Guidelines For Conducting And Reporting Botanical Inventories For Federally Listed, Proposed And Candidate Plants

(September 23, 1996)

These guidelines describe protocols for conducting botanical inventories for federally listed, proposed and candidate plants, and describe minimum standards for reporting results. The Service will use, in part, the information outlined below in determining whether the project under consideration may affect any listed, proposed or candidate plants, and in determining the direct, indirect, and cumulative effects.

Field inventories should be conducted in a manner that will locate listed, proposed, or candidate species (target species) that may be present. The entire project area requires a botanical inventory, except developed agricultural lands. The field investigator(s) should:

1. Conduct inventories at the appropriate times of year when target species are present and identifiable. Inventories will include all potential habitats. Multiple site visits during a field season may be necessary to make observations during the appropriate phenological stage of all target species.

2. If available, use a regional or local reference population to obtain a visual image of the target species and associated habitat(s). If access to reference populations(s) is not available, investigators should study specimens from local herbaria.

3. List every species observed and compile a comprehensive list of vascular plants for the entire project site. Vascular plants need to be identified to a taxonomic level which allows rarity to be determined.

4. Report results of botanical field inventories that include:

   a. a description of the biological setting, including plant community, topography, soils, potential habitat of target species, and an evaluation of environmental conditions, such as timing or quantity of rainfall, which may influence the performance and expression of target species

   b. a map of project location showing scale, orientation, project boundaries, parcel size, and map quadrangle name

   c. survey dates and survey methodology(ies)

   d. if a reference population is available, provide a written narrative describing the target species reference population(s) used, and date(s) when observations were made

   e. a comprehensive list of all vascular plants occurring on the project site for each habitat type

   f. current and historic land uses of the habitat(s) and degree of site alteration

   g. presence of target species off-site on adjacent parcels, if known

   h. an assessment of the biological significance or ecological quality of the project site in a local and regional context

5. If target species is(are) found, report results that additionally include:

a. a map showing federally listed, proposed and candidate species distribution as they relate to the proposed project

b. if target species is (are) associated with wetlands, a description of the direction and integrity of flow of surface hydrology. If target species is (are) affected by adjacent off-site hydrological influences, describe these factors.

c. the target species phenology and microhabitat, an estimate of the number of individuals of each target species per unit area; identify areas of high, medium and low density of target species over the project site, and provide acres of occupied habitat of target species. Investigators could provide color slides, photos or color copies of photos of target species or representative habitats to support information or descriptions contained in reports.

d. the degree of impact(s), if any, of the proposed project as it relates to the potential unoccupied habitat of target habitat.

6. Document findings of target species by completing California Native Species Field Survey Form(s) and submit form(s) to the Natural Diversity Data Base. Documentation of determinations and/or voucher specimens may be useful in cases of taxonomic ambiguities, habitat or range extensions.

7. Report as an addendum to the original survey, any change in abundance and distribution of target plants in subsequent years. Project sites with inventories older than 3 years from the current date of project proposal submission will likely need additional survey. Investigators need to assess whether an additional survey(s) is (are) needed.

8. Adverse conditions may prevent investigator(s) from determining presence or identifying some target species in potential habitat(s) of target species. Disease, drought, predation, or herbivory may preclude the presence or identification of target species in any year. An additional botanical inventory(ies) in a subsequent year(s) may be required if adverse conditions occur in a potential habitat(s). Investigator(s) may need to discuss such conditions.

9. Guidance from California Department of Fish and Game (CDFG) regarding plant and plant community surveys can be found in Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities, 1984. Please contact the CDFG Regional Office for questions regarding the CDFG guidelines and for assistance in determining any applicable State regulatory requirements.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213
TEL (310) 980-4000; FAX (310) 980-4018

F/SWR4:MH

Mr. Jeffrey A. Lindley
Division Administrator
Federal Highways Administration
980 Ninth Street, suite 4000
Sacramento, California 95814

Dear Mr. Lindley:

Thank you for you letter of July 15, 1999 requesting initiation of consultation for the effects of the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project on living marine resources and habitats managed and protected by the National Marine Fisheries Service. These responsibilities are mandated by the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA).

This consultation pertains to impacts to out-migrating juvenile salmon (Sacramento River winter-run chinook salmon- endangered; Central Valley ESU spring-run chinook salmon - threatened; Central California Coast ESU steelhead - threatened; and Central Valley ESU steelhead - threatened. It also addresses impacts to the "essential fish habitat" (EFH) of fish species managed in the Pacific Groundfish Fishery Management Plan (FMP) and the Coastal Pelagics FMP. These impacts are associated with dredging, the installation of steel piles for the bridge columns that would be used for Alternative N-6, the preferred project alternative, and the dismantling of the existing east span bridge.

The maximum estimated dredging volume is 585,000 cubic yards that will excavated by mechanical dredge. If contaminated sediments are encountered, an "environmental " bucket will be used to minimize the resuspension of these sediments. Pile driving activities will occur outside of the peak juvenile outmigration period of January 1 through May 31. Should construction extend past this construction window, noise insulation devices will be installed to reduce sound pressure and impulse levels. It is our understanding that once the existing superstructure is removed, the bridge foundation will be removed and the existing piles will be cut off below the mudline. Dismantling activities include concrete splitting or cutting methods and do not include the use of explosives.

Based upon review of the biological assessment and the June 21, 1999 memorandum to M. Melandry on mitigation actions, and the "Dredged Material Management Plan, (June 1999), NMFS concurs that the project is not likely to adversely affect endangered or threatened anadromous fish species. This concludes section 7 consultation under ESA for this project. However, if new information indicates that listed species may be adversely affected by the proposed project, the project description changes including both the installation of the new bridge or the removal of the existing bridge, or if a new species is listed, further consultation may be necessary.

Regarding EFH for Federally managed fish species, NMFS believes that the project could have an adverse habitat impact unless the following EFH Conservation Recommendations are considered. NMFS recommends that all dredged material be disposed at approved upland sites such as the Hamilton site or the ocean disposal site and that no materials be disposed at the Alcatraz site. In addition, based upon your recommended mitigation measures in the EFH Assessment, NMFS strongly urges that any long-term impacts to eelgrass beds and intertidal mudflats be adequately compensated to insure no-net-loss of these important habitats. This concludes EFH consultation under the Magnuson-Stevens Act for this project. However, if there are substantial revisions to the project description, new consultation is required.

Please be advised that regulations (50 CFR Sections 600.920) to implement the EFH provisions of the MSFCMA require your office to provide a written response to this letter within 30 days of its receipt and at least 10 days prior to final approval of the action regarding our EFH recommendations. A preliminary response is acceptable if final action cannot be completed within 30 days. Your final response must include a description of measures proposed to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH Conservation Recommendations, you must provide an explanation of the reasons for not implementing them.

If you have questions concerning this consultation, please contact Mr. Mark Helvey at (707) 575-6078.

Sincerely,

for

Rodney R. McInnis
Acting Regional Administrator

cc:

CDFG - Menlo park
USFWS - Sacramento

Memorandum

To : Ms. Mara Melandry
Department of Transportation
District 4 Toll Bridge Program
Post Office Box 23660
Oakland, California 94623-0660

Date: August 8, 2000

From : **Department of Fish and Game - Post Office Box 47, Yountville, California 94599**

Subject: San Francisco - Oakland Bay Bridge East Span, Review of the Biological Assessment

Department of Fish and Game personnel have reviewed the Biological Assessment submitted for the above-referenced project. The American peregrine falcon (*Falco peregrinus anatum*) is a State-listed endangered species which may be impacted by the proposed project. Since this species is also listed as a fully protected species under Fish and Game Code Section 3511, the Department cannot issue an incidental take permit for this species pursuant to Section 2081. All activities associated with the bridge project, therefore, need to be designed to avoid take of this species. To avoid take, the Department recommends the Department of Transportation develop a Management Plan that addresses American peregrine falcon and other bridge nesting species of concern. The Management Plan should discuss all bridge construction, removal, and maintenance activities and develop schedules for activities to avoid take during critical nesting periods and take of individuals. The Management Plan should be developed in consultation with the Department and should be approved by the Department prior to implementation.

The project may also affect State-listed fish species including the State endangered winter-run chinook salmon (*Oncorhynchus tshawytscha*) and state threatened spring-run chinook salmon (*Oncorhynchus tshawytscha*). Based on the project location; mitigation measures in the Biological Assessment and the June 21, 1999 memorandum to Ms. Mara Melandry; and the determination of "not likely to adversely affect" from the National Marine Fisheries Service, the Department concludes that the project, as proposed, will not result in take of chinook salmon and a 2081 permit is not required for this project. If the project changes to include blasting or other activities that may significantly impact fisheries, the Department should be contacted to re-initiate consultation.

Conserving California's Wildlife Since 1870

Department personnel will continue to work with your staff to develop appropriate mitigation measures for non-listed species and other biological resources of concern. If you have any questions, please contact Mr. Scott Wilson, Environmental Specialist, at (707) 944-5529; or Mr. Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

Robert W. Floerke
Regional Manager
Central Coast Region

United State Department of the Inte or

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, W-2605
Sacramento, California 95825-1846

ATT.

IN REPLY REFER TO:
1-1-99-I-1877

August 31, 1999

Mr. Jeffrey A. Lindley
Division Administrator
Federal Highway Administration
980 Ninth Street, Suite 400
Sacramento, California 95814-2724

Subject: Request for Formal Endangered Species Consultation on the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project

Dear Mr. Lindley:

The U.S. Fish and Wildlife Service (Service) has received the Federal Highway Administration's (FHWA) July 19, 1999, letter requesting initiation of formal section 7 consultation under the Endangered Species Act of 1973, as amended (Act). The consultation concerns the possible effects of the proposed San Francisco-Oakland Bay Bridge East Span Seismic Safety Project on the American peregrine falcon (*Falco peregrinus anatum*) (peregrine falcon).

The peregrine falcon was removed from the Endangered Species list, effective August 25, 1999; therefore, formal consultation is not required under the Act. The peregrine falcon will continue to be protected by the Migratory Bird Treaty Act (MBTA). The MBTA prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except when specifically authorized by the Interior Department. The Service has continued its prohibition on the take of peregrine falcons for all purposes until management guidelines are developed in coordination with the States. The Office of Migratory Birds has issued a letter to all affected permit holders to alert them of this amendment to their permits. Any harassment should be avoided and minimized to the maximum extent practicable. The Service recommends that FHWA continue to work with the Service to develop measures which are consistent with the intent and spirit of MBTA and the Act.

If you have any questions about this consultation or compliance with MBTA, you may contact Cecilia Brown or Ken Sanchez at (916) 414-6625.

Sincerely,

Karen J. Miller
Chief, Endangered Species Division

cc: Mara Melandry, California Department of Transportation, Oakland, CA

ATTACHMENT 4

CORRESPONDENCE FROM THE U.S. COAST GUARD CONCERNING CONSTRUCTION PERIOD NAVIGATIONAL AIDS AND CLEARANCES

of Transportation
United States
Coast Guard

Eleventh Coast Guard District

Coast Guard Island
Alameda, CA 94501-5100
Phone: (510)437-2983
FAX: (510)437-5836

16591
Ser: oan 206-99
April 19, 1999

State of California Department of Transportation
Attn: Mr. Steve Hulsebus
Supervising Transportation Engineer
Toll Bridge Program
P.O. Box 23660
Oakland, CA 94623-0660

RECEIVED
APR 2 3 1999
BY:

Dear Mr. Hulsebus:

At the most recent San Francisco–Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project Development Team meeting on April 8, 1999, Mr. Ade Akinsanya provided Mr. Jerry Olmes with drawing CU 04 EA 012001 (encl. 1). This drawing depicted horizontal clearances of 93 meters, 95 meters, and 99 meters in the main openings of the new SFOBB during construction of temporary supports. These clearances may be further reduced if temporary fenders are needed. The Coast Guard considers the clearances to be adequate, since they are greater than the 88.7 meter clearance available at the Benicia-Martinez Highway and Railroad Bridge complex.

We have verified that the Navy Buoys (circled on an excerpt of the navigation chart, encl. 2) located north of the new bridge location, have been removed. So mariners should have sufficient room to maneuver through both the old bridge and the new bridge to take advantage of the maximum horizontal clearance available. It will be necessary to keep that area relatively unobstructed by marine equipment to insure that mariners have sufficient clearance for safe passage. At least one of the 93, 95 or 99 meter openings must remain completely unobstructed by marine construction equipment and scaffolding at all times. Our office and the Coast Guard Marine Safety Office San Francisco Bay (MSO) will review and approve the mooring plans for marine construction equipment. Please allow 8 weeks for the initial approval of mooring plans for the work site. Your contractor will have to work closely with us, MSO, and the Vessel Traffic Service throughout the project. The MSO Point of Contact is LT Drew Cheney , Chief of Port Operations at (510) 437-2770.

The temporary structures are considered false work and are approved under the authority of Section 9 of the Rivers and Harbors Act, the General Bridge Act and related statutes. In accordance with Coast Guard bridge, falsework must be removed from the waterway in entirety, as opposed to being broken off at the mud line. It will be necessary also for CalTrans to adequately mark the temporary piles/supports. The temporary obstructions must be marked with yellow flashing lights, except the navigation span(s) must be marked with red flashing lights. Lights must be installed as soon as the piles are in place. The main navigation span must be marked with an electronic horn (fog signal) with a range of one-half mile. The fog horn must be mounted on the western pier of the intended navigation span and must have the characteristic of 3 blasts every 30 seconds (1 sec blast, 1.5 sec silent, 1 sec blast, 1.5 sec silent, 1 second blast, 24 sec silent) and must be coordinated to come on when the east bay bridge fog signals come on.

Other temporary obstructions (e.g. mooring dolphins or buoys) may require private aids to navigation (PATON) to adequately mark them for the safety of passing vessels. Ms. Jan Austin, (510) 437-2983 is our PATON point of contact. Please allow approximately six weeks for any PATON permit coordination.

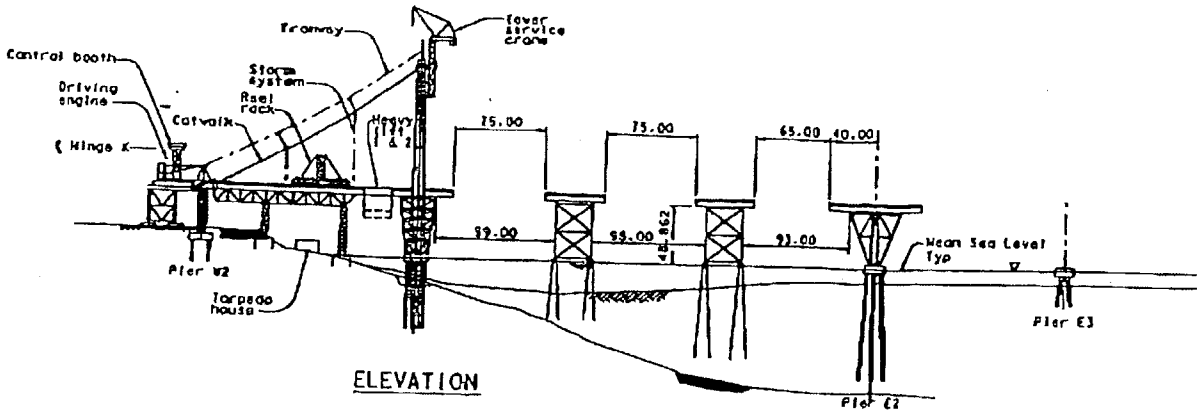
Please do not hesitate to contact either me or Jerry at (510) 437-3514 if we may answer any questions.

Sincerely,

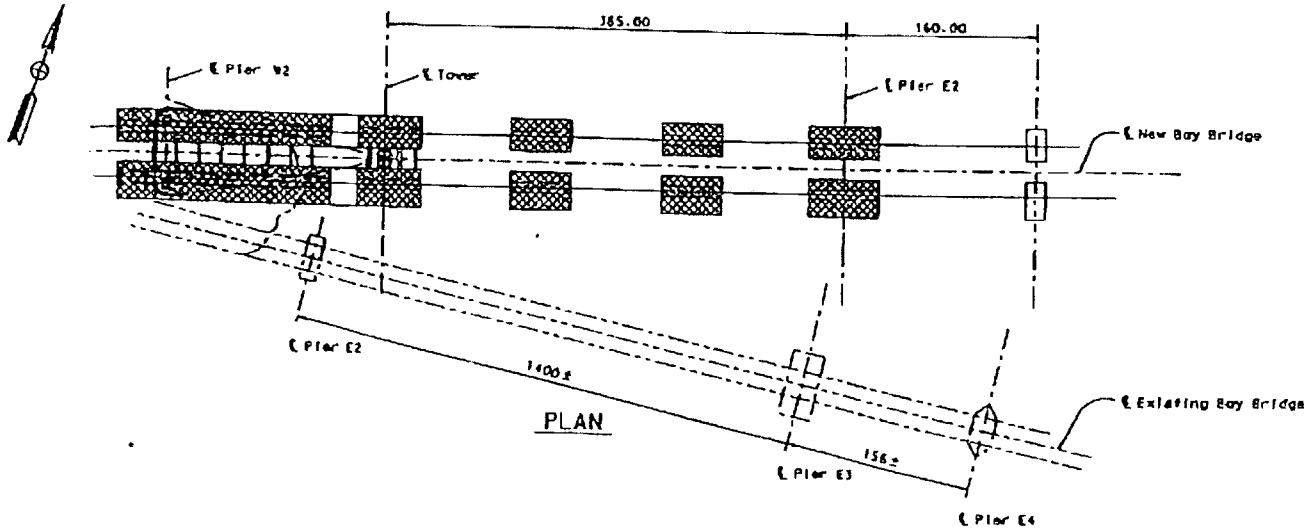
W. R. TILL
Chief, Bridge Section
U. S. Coast Guard
By direction of the District Commander

Encl: (1) Drawing CU 04 EA 012001
(2) Navigation chart 18652 (excerpt)

Copy: Marine Safety Office San Francisco Bay, Attn: Port Operations LT Drew Cheney w/encls
Commanding Officer, VTS, San Francisco, Attn: LT Bill Fox w/encls
CalTrans Attn: Mr. Ade Akinsanya, Supervising Structural Engineer, Sacramento w/encls



ELEVATION



PLAN

Unchecked
Incomplete plan
4/8/99

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER

CU 04
EA 012001

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
MAIN SPAN
SUSPENSION BRIDGE

34-0006

REGISTERED ENGINEER - CIVIL
PLANS APPROVAL DATE
T.Y. LIN / MOFFATT & NICHOL
635 BATTERY STREET
SAN FRANCISCO, CA 94111

ENCLOSURE(1)

11th Coast Guard District
Aids to Navigation
and
Waterways Management
Branch
Bridge Section

From: WAYNE TILL

Date: 4/13/99

To: ANT SF

FAX: 415-399-3561

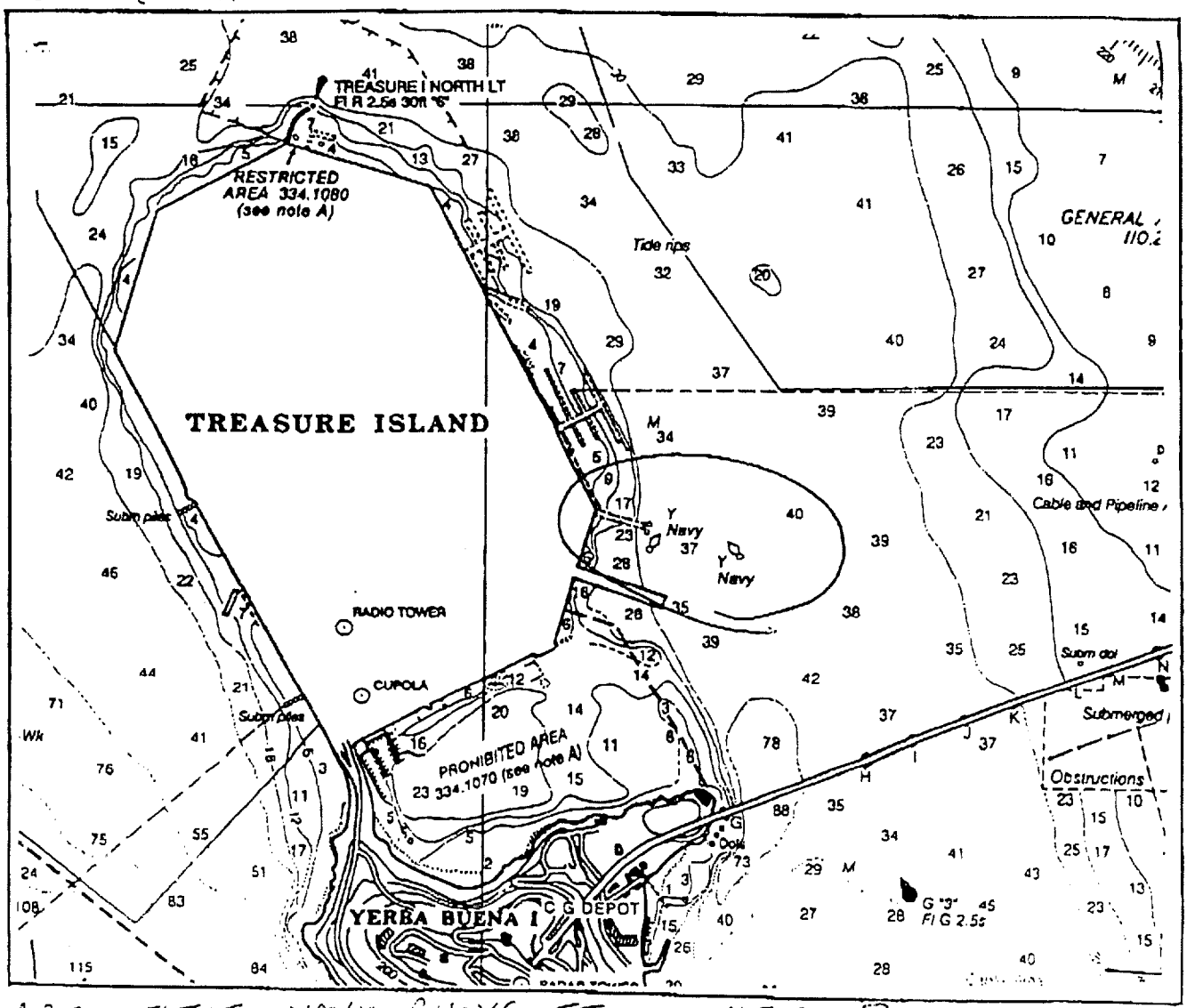
Number of Pages: 1
(Including Cover)

SEE QUESTION BELOW:

F

A

X



ARE THESE NAVY BUOYS STILL THERE?

Coast Guard Island Bldg. 50-6 Alameda, CA 94501
Telephone: (510) 437-3514
Fax: (510) 437-5836

ENCLOSURE(2)

4/13/99 PC SECRETARY (TILL'S) TO SAY BOTH BUOYS GONE.

ATTACHMENT 5

CORRESPONDENCE FROM US COAST GUARD CONCERNING PIER REMOVAL ELVATIONS

U.S. Department of Transportation
United States Coast Guard

Commander (oan-2)
Eleventh Coast Guard District

Bldg. [illegible], Coast Guard Island
Alameda, CA 94501-5100
Staff Symbol: (oan-2)
Phone: (510) 437-3514
FAX: (510) 437-5836

16591.1
San Francisco Bay (8.9)
Ser: 583-00
November 2, 2000

Mr. Steve Hulsebus
California Department of Transportation
P. O. Box 23660
Oakland, California 94623-0660

Dear Mr. Hulsebus:

The U. S. Army Corps of Engineers, San Francisco District, has notified us they have no channel maintenance requirements in the east spans of the San Francisco-Oakland Bay Bridge and therefore have no pier removal elevation requirements associated with the proposed bridge replacement.

We presently plan to require bridge piers and temporary trestle piers in the water to be removed down to an elevation at least 1.5 feet below the mudline, measured at the time of removal.

Land pier removal should be addressed under separate criteria. The piers on Yerba Buena Island may be particularly sensitive to bank stabilization problems.

The Pile Installation Demonstration was permitted by the Corps of Engineers under Section 10 of the Rivers and Harbors Act. Removal elevations of those piles will not be included as part of the Coast Guard Bridge Permit.

Sincerely,

DAVID H. SULOUFF
Chief, Bridge Section
Eleventh Coast Guard District
By direction of the District Commander

Copy: U. S. Army Corps of Engineers, San Francisco District
Federal Highway Administration, Sacramento
San Francisco Bay Conservation & Development Commission

Project # **13103K** File No.
PBDocs # 31340 Key Word:
Doc. Type: L Date Rec'd / Sent: 11 / 14 / 00
Routing: TWO / MGA / JEH / / / /
Copy to: / / / / / /
Comments:

ATTACHMENT 6

FINAL DETERMINATION OF CONSISTENCY WITH THE COASTAL ZONE MANGEMENT PLAN

THIS ATTACHMENT NO.6 IS NOT AVAILABLE AT THIS TIME

ATTACHMENT 7

PROOF OF LAND OWNERSHIP IN THE PROJECT AREA

Recorded at the request of:
State of California
Department of Transportation

After recording please return to:
State of California
Department of Transportation
P.O. Box 23440
Oakland, CA 94623-0440

OCT 2 6 2000

CONFORMED COPY of document recorded on 10/26/2000, 2000G855531
at _____ as
This document has not been compared with the original
SAN FRANCISCO ASSESSOR RECORDER

QUITCLAIM DEED

THIS QUITCLAIM DEED, made this 25th day of October, 2000, by and between the UNITED STATES OF AMERICA, acting by and through the DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION ("Grantor"), and the STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION ("Grantee"):

WITNESSETH:

WHEREAS, the Federal Highway Administrator, acting pursuant to delegation of authority from the Secretary of Transportation, is authorized pursuant to Title 23, United States Code, Section 107 (d) (72 Stat. 892) to acquire, at the request of a State, any lands or interests in lands owned by the United States, including within the term "interests in lands" the control of access thereto from adjoining lands, required by such State for right-of-way or other purposes in connection with the prosecution of any project for the construction, reconstruction, or improvement of any section of the National System of Interstate and Defense Highways: and

This transfer is exempt from Recording Fees, pursuant to Section 27383, California Government Code; and is exempt from Documentary Transfer taxes, pursuant to Section 11922, California Revenue and Taxation Code; and is exempt from property taxation, pursuant to Section 202 and Division 1, Part 9, Chapter 4, California Revenue and Taxation Code. All correspondence pertaining to tax matters may be mailed to:

State of California
Department of Transportation
P.O. Box 23440
Oakland, CA 94623-0440

WHEREAS, the Grantee has filed application under the provisions of Title 23 United States Code, Section 107 (d), for a right-of-way of Interstate Highway 80 over certain federal land in the State of California, City and County of San Francisco ("Property"); and

WHEREAS, the Federal Highway Administrator, pursuant to delegation of authority from the Secretary of Transportation, has determined that the transfer of the Property is reasonably necessary for the construction, operation and maintenance of Grantee's San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project, San Francisco-Oakland Bay Bridge East Span Seismic Safety Project ("East Span Project"), and San Francisco-Oakland Bay Bridge Yerba Buena Island Tunnel Seismic Retrofit Project (all collectively referred to as Grantee's Seismic Safety Projects and all part of Interstate Highway 80); and

WHEREAS, the Property and adjoining lands are a part of Naval Station Treasure Island under the jurisdiction of the United States of America, Department of Defense, Department of the Navy ("Navy"), currently undergoing the base realignment and closure process pursuant to provisions of the Defense Base Closure and Realignment Act of 1990, the Base Closure Community Assistance Act of 1993 and/or the Base Closure Community Redevelopment and Homeless Assistance Act of 1994, as amended; and

WHEREAS, the Grantee with respect to activities related to the Property, agrees that (a) no person shall, on the grounds of race, color, national origin. sex, age, disability, or religion be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to the Grantee's operations, programs, or activities conducted on the Property, (b) that the Grantee shall use said land so conveyed in compliance with all requirements imposed by or pursuant to Title VI of the Civil Rights Act of 1964 (42 U.S.C. section 2000d to 2000d-4) and all applicable civil rights provisions of other Federal statutes.

NOW THEREFORE, Grantor does hereby quitclaim and convey to Grantee the following described federal lands in the City and County of San Francisco, State of California:

1. Grantor quitclaims to Grantee, in fee simple absolute, Parcel 57935-1, subject to the following reservations, exceptions and covenants set forth in sections 1A, 1B, 1C, 1D, 1E, 1F, 1G and 1H below. Parcel 57935-1 is described in Exhibit A attached hereto and is depicted on the map attached as Exhibit B.

A. Excepting and reserving to Grantor that portion of Parcel 57935-1 which is above elevation 270.00 feet (San Francisco-Oakland Bay Bridge 1933 Mean Lower Low Water Datum) The contour line of the 270-foot elevation is depicted on Exhibit B. Grantee is quitclaimed fee simple absolute ownership of all the subsurface land lying inside such 270-foot contour line and below elevation 270 feet.

B. Also excepting and reserving to Grantor an access easement and right-of-way for roadway and utility purposes, 40 feet wide, across Parcel 57935-1, in the general location and

along the general alignment shown on the map attached hereto as Exhibit B, for ingress and egress over Parcel 57935-1 to and from Parcel 57935-6 (the "Access Easement"). Said Access Easement is appurtenant to Grantor's remaining property not transferred by this Quitclaim Deed

(i) This Access Easement shall not be used for the transport of explosive or flammable materials, or other materials deemed by Grantee to be a potential hazard to Grantee's facilities. No hazardous or objectionable smoke, fumes, vapors, or odors shall be generated by Grantor from the Access Easement.

C. Also excepting and reserving to Grantor Parcel 57935-5, subject to those easements and conditions described below. Parcel 57935-5 is described in Exhibit A attached hereto and is depicted on the map attached as Exhibit B. Parcel 57935-5 lies entirely within Parcel 57935-1.

D. Also excepting and reserving to Grantor Parcel 57935-6, subject to those easements and conditions described below. Parcel 57935-6 is described in Exhibit A attached hereto and is depicted on the map attached as Exhibit B. Parcel 57935-6 lies entirely within Parcel 57935-1.

E. Also excepting and reserving to Grantor access easements and right of ways, 40 feet wide, for roadway and utility purposes, over each of the existing paved roadways which cross the surface of Parcel 57935-1, as of the date of recordation of this Quitclaim Deed (collectively referred to hereafter as the "Roadway Easements"). Such existing paved roadways consist of Treasure Island Road and Macalla Road and are indicated on the map attached hereto as Exhibit B. The centerline of each such access easement and right of way shall be the centerline of the existing paved roadway.

F. Building 213, located partially within Parcel 57935-1, is currently used for the storage of firefighting equipment. Grantee covenants that upon request from Grantor, made in a manner consistent with the requirements of this section, Grantee, at its own cost, will replace Building 213 with a structure of like size, like construction materials, and like construction quality, built to current building code requirements. Grantor shall provide, at no cost or charge to Grantee, a suitable site on Grantor's remaining property on Yerba Buena Island or Treasure Island, with topographic and physical features substantially similar to those currently existing at Building 213, for the replacement building.

G. Grantee covenants that, should any portion of Parcel 57935-1, conveyed in fee herein, not be required for right-of-way or other purposes in connection with the Grantee's Seismic Safety Projects described above, Grantee shall give notice of that fact to the Grantor and such unneeded rights conveyed herein shall be reconveyed by Grantee to Grantor.

H. Grantor shall have no abutters' rights and no access rights to Parcel 57935-1, except at existing on- and off-ramps to Grantee's freeway facilities thereon and/or at such on- and off-ramps to the freeway as may be constructed and as otherwise specified in this Quitclaim Deed.

2. Grantor quitclaims to Grantee, aerial easements over Parcel 57935-5 and Parcel 57935-6 to construct. reconstruct, alter, relocate, repair, inspect, operate, and maintain freeway, bridge, viaduct, highway, any other transportation facilities; utility facilities; transmission facilities of all types and nature (collectively referred to hereafter as "Aerial Easement Rights"). Grantee need not obtain any permit from Grantor, to exercise its Aerial Easement Rights hereunder. Said aerial easements are appurtenant to Parcel 57935-1.

A. Grantor shall not place or maintain any structure, pole, wire, pipe, tower, or any other improvement within 50 feet of the bottom of the lower deck of any bridge or viaduct structure constructed over the ground surface of Parcels 57935-5 or 57935-6 or within 50 feet measured laterally from the dripline of any bridge or viaduct structure constructed over the ground surface of Parcels 57935-1, 57935-5 or 57935-6. Grantor shall not excavate within 25 feet measured laterally from any footing, pier, or column within Parcels 57935-1, 57935-5 or 57935-6. No skylight or window shall be constructed or placed on the roof of any building located on the ground surface of Parcels 57935-5, 57935-6.

B. Parcels 57935-5 and 57935-6 shall not be used for the manufacture, storage, or transport of explosive or flammable materials, or other materials deemed by Grantee to be a potential hazard to Grantee's facilities. No hazardous or objectionable smoke, fumes, vapors, or odors shall be generated by Grantor from Parcels 57935-5 or 57935-6.

C. Subject to the provisions of sections 2A and 2B above, Grantor retains the right to utilize, upon reasonable prior notice to Grantee, the surface and subsurface of Parcels 57935-5 and 57935-6 for uses and purposes which do not conflict with, or impair, or interfere with Grantee's paramount and superior Aerial Easement Rights, as reasonably determined by Grantee. Grantor retained rights include but are not limited to the right to cross over Parcels 57935-5 and 57935-6, and to utilize Parcels 57935-5 and 57935-6 for roads, utilities, and other improvements which do not conflict with, impair, or interfere with Grantee's facilities and uses and/or with Grantee's paramount and superior Aerial Easement Rights. Structures which are not designed or used for residential occupancy are permitted on Parcels 57935-5 and 57935-6; however they are subject to Grantee's paramount and superior Aerial Easement Rights. Residential use development, including, but not limited to, convention center/hotels, guest houses, hostels, or any other dwelling structures ("Residential Use Development") are not permitted on Parcels 57935-5 or 57935-6 unless all of the following conditions are met:

(i) Grantor has first obtained all necessary environmental approvals and applicable local, State, and Federal permits and approvals specifically approving the total and ultimate amount of Residential Use Development proposed for development for all of Yerba Buena Island, including but not limited to compliance with the National Environmental Policy Act (Federal), the California Environmental Quality Act (State), the Coastal Zone Management Act (Federal), the McAteer-Petris Act (State), and the National Historic Preservation Act (Federal). All of such permits and approvals are collectively referred to hereafter as "Approvals" and

(ii) It is "Physically Impossible to Relocate" the amount of Residential Use Development proposed by Grantor to be placed on Parcels 57935-5 and 57935-6 to the remaining portions of Yerba Buena Island retained by Grantor, excluding Parcels 57935-1, 57935-5, and 57935-6. "Physically Impossible to Relocate" means there is an insufficient amount of space on such remaining portions of Yerba Buena Island, to physically accommodate all the Residential Use Development proposed by Grantor to be placed on Parcels 57935-5 and 57935-6 were Grantor to redesign and/or reconfigure Grantor's proposed development, so as to relocate the amount of Residential Use Development proposed for Parcels 57935-5 and 57935-6, to Grantor's remaining property on Yerba Buena Island (excluding Parcels 57935-1, 57935-5, and 57935-6).

(iii) For the purpose of determining whether it is Physically Impossible to Relocate the amount of Residential Use Development proposed for development on Parcels 57935-5 and 57935-6, to Grantor's remaining property on Yerba Buena Island (excluding Parcels 57935-1, 57935-5, and 57935-6), the fact that Grantor has obtained all necessary Approvals for Residential Use Developments on Parcels 57935-5 and/or 57935-6 shall be disregarded. If there was adequate area on the remaining portion of Yerba Buena Island (excluding Parcels 57935-1, 57935-5, 57935-6) and/or Grantor could have redesigned the proposed development at the outset, including but not limited to changing the location of buildings and/or increasing the height and/or density of Residential Use Development on such remaining portions of Yerba Buena Island, so that the total and ultimate amount of Residential Use Development could have been accommodated on such remaining portions of Yerba Buena Island, without placing Residential Use Development on Parcels 57935-5 and 57935-6, then Grantor may not place any Residential Use Development on Parcels 57935-5 and 57935-6.

D. Grantor's ownership, development and use of the surface of Parcels 57935-5 and 57935-6 are subordinate to Grantee's paramount and superior Aerial Easement Rights. In this regard, in the event it is necessary or desirable for Grantee, at some future time after the completion of Grantee's Seismic Safety Projects, to exercise its Aerial Easement Rights and it becomes necessary to demolish or damage any of Grantor's improvements (excluding Grantor's improvements on Parcels 57935-5 and 57935-6 existing as of the date of the recording of this Quitclaim Deed) in the exercise of Grantee's Aerial Easement Rights such demolition or damage shall be without any compensation to Grantor for any loss, damage, or injury to (a) Grantor's retained rights in and to its underlying fee interests in the surface, subsurface, and airspace of Parcels 57935-5 and 57935-6; to (b) Grantor's other property or property interests on Yerba Buena Island and/or Treasure Island outside Parcels 57935-5 and 57935-6; to (c) any business owned or operated by Grantor wholly or partially on Parcels 57935-5 or 57935-6; to (d) any business owned or operated by Grantor on Grantor's other property or property interests on Yerba Buena island or Treasure Island outside Parcels 57935-5 and 57935-6; (e) any utilities installed by Grantor across, on, under or over Parcels 57935-5 or 57935-6; arising out of or relating to the exercise of Grantee's Aerial Easement Rights hereunder, except as follows:

(i) In the event that Grantor, either before, during, or after the construction of Grantee's Seismic Safety Projects, obtains all necessary approvals for construction of new improvements to be located partially or entirely within Parcels 57935-5, and 57935-6 and Grantor actually constructs such new improvements in whole or in part, and thereafter any subsequent construction, reconstruction, alteration, repair, relocation, maintenance or investigation of Grantee's facilities or any construction of new facilities by Grantee within Parcels 57935-5 and 57935-6 physically destroys Grantor's improvements, or physically damages Grantor's improvements in excess of 10% of the total cost to replace them, or Grantee blocks physical access to the entry or entries to such improvements so as to render them permanently physically unusable, Grantee shall (a) reimburse Grantor for the remaining unamortized amount of Grantor's original actual out-of-pocket costs of constructing or reconstructing such improvements or (b) reimburse Grantor for the cost to repair the physical damage to Grantor's improvements in the event the improvements are damaged and not destroyed, whichever is less. Such reimbursable original out-of-pocket construction or reconstruction costs shall include the remaining unamortized original reasonable architectural and engineering fees actually expended by the Grantor but shall not include Grantor's in-house staff time. The reimbursable unamortized remaining amount of the total original construction or reconstruction costs shall be calculated, based on a straight line depreciation taken over a period not to exceed a 25-year total life span, commencing on substantial completion of construction or reconstruction for buildings and other structures, and a period not to exceed a 10-year total life span for trade fixtures and/or tenants' improvements. The remaining balance of the 25 or 10-year total life span shall be calculated from the date Grantee requires Grantor to vacate the improvement or date of physical damage to the improvement, whichever is earlier. Grantor shall receive no other, or additional compensation of any kind or nature, or any additional payment whatever, for Grantee's exercise of its Aerial Easement Rights hereunder. Grantor shall not be entitled to obtain Relocation Assistance Benefits under federal or state law arising out of Grantee's exercise of its Aerial Easement Rights hereunder.

E. Grantee covenants that, should any portion of Aerial Easement Rights over Parcels 57935-5 and 57935-6, conveyed herein, not be required for right-of-way or other purposes in connection with the Grantee's Seismic Safety Projects described above, Grantee shall give notic of that fact to the Grantor and such unneeded rights conveyed herein shall be reconveyed by Grantee to Grantor.

3. Grantor quitclaims to Grantee, temporary construction easements over Parcels 57935-2, 57935-3, 57935-4, 57935-5, 57935-6 (excluding the ground surface of Parcel 57935-6) and any areas within Parcel 57935-1 reconveyed to Grantor pursuant to section 1G above; a temporary construction easement over that portion of existing Macalla Road within the boundaries of Parcels 57935-1 and 57935-4; and a temporary construction easement over the Access Easement reserved to Grantor pursuant to section 1B above (all collectively referred to hereafter as the "TCE"). The TCE shall terminate on the later of the following dates: (a) at such time Grantee determines that the temporary construction easements are no longer required for the construction of Grantee's Seismic Safety Projects; or (b) Grantee gives final acceptance to its contractor for all

(i) In the event that Grantor, either before, during, or after the construction of Grantee's Seismic Safety Projects, obtains all necessary approvals for construction of new improvements to be located partially or entirely within Parcels 57935-5, and 57935-6 and Grantor actually constructs such new improvements in whole or in part, and thereafter any subsequent construction, reconstruction, alteration, repair, relocation, maintenance or investigation of Grantee's facilities or any construction of new facilities by Grantee within Parcels 57935-5 and 57935-6 physically destroys Grantor's improvements, or physically damages Grantor's improvements in excess of 10% of the total cost to replace them, or Grantee blocks physical access to the entry or entries to such improvements so as to render them permanently physically unusable, Grantee shall (a) reimburse Grantor for the remaining unamortized amount of Grantor's original actual out-of-pocket costs of constructing or reconstructing such improvements or (b) reimburse Grantor for the cost to repair the physical damage to Grantor's improvements in the event the improvements are damaged and not destroyed, whichever is less. Such reimbursable original out-of-pocket construction or reconstruction costs shall include the remaining unamortized original reasonable architectural and engineering fees actually expended by the Grantor but shall not include Grantor's in-house staff time. The reimbursable unamortized remaining amount of the total original construction or reconstruction costs shall be calculated, based on a straight line depreciation taken over a period not to exceed a 25-year total life span, commencing on substantial completion of construction or reconstruction for buildings and other structures, and a period not to exceed a 10-year total life span for trade fixtures and/or tenants' improvements. The remaining balance of the 25 or 10-year total life span shall be calculated from the date Grantee requires Grantor to vacate the improvement or date of physical damage to the improvement, whichever is earlier. Grantor shall receive no other, or additional compensation of any kind or nature, or any additional payment whatever, for Grantee's exercise of its Aerial Easement Rights hereunder. Grantor shall not be entitled to obtain Relocation Assistance Benefits under federal or state law arising out of Grantee's exercise of its Aerial Easement Rights hereunder.

E. Grantee covenants that, should any portion of Aerial Easement Rights over Parcels 57935-5 and 57935-6, conveyed herein, not be required for right-of-way or other purposes in connection with the Grantee's Seismic Safety Projects described above, Grantee shall give notic of that fact to the Grantor and such unneeded rights conveyed herein shall be reconveyed by Grantee to Grantor.

3. Grantor quitclaims to Grantee, temporary construction easements over Parcels 57935-2, 57935-3, 57935-4, 57935-5, 57935-6 (excluding the ground surface of Parcel 57935-6) and any areas within Parcel 57935-1 reconveyed to Grantor pursuant to section 1G above; a temporary construction easement over that portion of existing Macalla Road within the boundaries of Parcels 57935-1 and 57935-4; and a temporary construction easement over the Access Easement reserved to Grantor pursuant to section 1B above (all collectively referred to hereafter as the "TCE"). The TCE shall terminate on the later of the following dates: (a) at such time Grantee determines that the temporary construction easements are no longer required for the construction of Grantee's Seismic Safety Projects; or (b) Grantee gives final acceptance to its contractor for all

the work of Grantee's Seismic Safety Projects. If requested, Grantee will prepare, execute and deliver to Grantor quitclaim deed(s) to release and extinguish the temporary construction easements.

A. For the entire duration of the East Span Project construction and these temporary construction easements, Grantor's sole use of the TCE is limited to ingress and egress across the TCE to Parcel 57935-6. Grantor's access to Parcel 57935-6 during this time, over and across the TCE are subject to the following terms and conditions:

(i) Grantor shall submit a written, detailed request to Grantee's District Director or his designee ("Construction Manager") at least ten (10) business days prior to the date Grantor desires access to Parcel 57935-6. The Construction Manager shall have five (5) business days to review Grantor's request for potential conflicts with construction schedules and activities and respond to Grantor. Grantee may, in its sole discretion, impose conditions on Grantor's request including but not limited to, requiring Grantor to reschedule the proposed access dates and times or requiring that Grantor use an alternative route, or method of access;

(ii) Grantor, its agents, contractors, or employees, shall be accompanied by Construction Manager at all times while accessing the TCE and Grantor shall not interfere with, detain, or otherwise impede Grantee, its agents, contractors, or employees in their construction operations and activities. In the event Grantor's access across the TCE interferes with Grantee's construction activities, Grantee may require that Grantor immediately cease and desist and vacate the TCE;

(iii) Such access to Parcel 57935-6 and the sole purpose for which Grantor may use Parcel 57935-6 shall be for the monitoring and ordinary maintenance of Building 262. No construction, reconstruction, retrofit or other like activities may be performed by Grantor in Parcel 57935-6 for the duration of the TCE. Grantor, its agents, contractors. or employees, shall not remain on Parcel 57935-6 for a time period longer than 24 hours; and

(iv) The temporary limitations upon Grantor's use of the TCE set forth in this section 3A shall terminate no later than the date upon which Grantee provides to Grantor the notice for termination of the TCE set forth above.

B. Grantee agrees to repair any damage it may cause, during its use of the TCE, to the property of Grantor within the area of the TCE.

4. Grantor quitclaims to Grantee, appurtenant to Grantee's interests in Parcels 57935-1, 57935-5 and 57935-6, a non-exclusive right-of-way and access easement over all existing roads on Yerba Buena Island, for the purposes of ingress and egress and utility service to and from the surface of Parcels 57935-1, 57935-5 and 57935-6 and to and from the San Francisco-Oakland Bay Bridge. Said ingress and egress and utility service shall be for purposes of constructing, reconstructing, repairing, retrofitting, operating, and maintaining Grantee's facilities on Parcels 57935-1,

57935-5 and 57935-6. Grantor may relocate, close, or abandon existing roads on Yerba Buena Island, on condition that Grantor provides new alternative roads which give access and utility service, adequate to Grantee, to and from the surface of Parcels 57935-1, 57935-5 and 57935-6 and to and from the San Francisco-Oakland Bay Bridge. Grantee shall have a permanent, non-exclusive right of way and access easement over all such relocated roads.

5. Those certain portions of Parcel 57935-1 and Parcel 57935-4 lying below ordinary high water mark and above mean low water mark, Parcel 57935-2 and Parcel 57935-3 shall remain subject to the provisions of Chapter 898, Statutes of 1997 (Treasure Island Conversion Act of 1997).

6. Grantee agrees and covenants that the design and construction of highway projects situated on this right-of-way will be in accord with the provisions of Title 23, United States Code - Highways, and amendments; the provisions of Title 23, Code of Federal Regulations; and the construction specifications of Grantee as approved by the Federal Highway Administration for use on federal-aid projects.

7. Grantee agrees and covenants that it shall maintain the right-of-way and highway facilities to acceptable standards of repair, orderliness, neatness, sanitation, and safety.

8. Notices. Except as otherwise expressly provided herein, any notices given under this Quitclaim Deed shall be effective only if in writing and given by delivering the notice in person, or by sending it first-class certified mail with return receipt requested, or by nationally recognized overnight courier that guarantees next-day delivery and provides a receipt therefor, with postage prepaid, addressed as follows (or such alternative address as may be provided in writing):

To Grantee:

State of California
Department of Transportation
District 4
111 Grand Avenue
Oakland, CA 94612
Attn: District Director

State of California
Department of Transportation
District 4
Right of Way Division
111 Grand Avenue
Oakland, CA 94612
Attn: District Division Chief

And to:

State of California
Department of Transportation
Legal Division
P.O. Box 7444
San Francisco, CA 94120-7444
Attn: Deputy Chief Counsel

To Grantor:

United States Department of Transportation
Federal Highway Administration
Administrator, California Division
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724
Attn: Right-of Way Officer

With a copy to:

United States Department of Transportation
Federal Highway Administration
Western Legal Services
201 Mission Street, Suite 2100
San Francisco, CA 94105
Attn: Assistant Chief Counsel

Notices herein shall be deemed given and actual delivery completed three (3) days after the date when they shall have been mailed if sent by first-class certified mail; two (2) days after the date of mailing if sent by overnight courier; and actual delivery shall be deemed complete on the date of delivery if done by personal service at the business office listed above. All personal service shall be done during normal business hours.

9. Grantor and Grantee mutually understand and agree that this Quitclaim Deed will be recorded and that the rights, obligations, covenants, and restrictions created by this Quitclaim Deed shall run with the land and shall be binding upon Grantor and on Grantee.

10. Pursuant to Section 120(h)(3) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. 9620(h)(3), Grantee acknowledges notice of the existence of hazardous wastes within the parcels subject to this Quitclaim Deed, as reported in the Hazardous Waste Assessment for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project, dated September 1998. Grantee acknowledges that Grantee is a potentially responsible party for the parcels subject to this

Quitclaim Deed. Grantor hereby reserves unto itself a perpetual right of entry and access to any and all portions of the parcels subject to this Quitclaim Deed (which shall include surface, subsurface, and aerial) for purposes of performing remediation or corrective activities relating to such hazardous wastes. Such access shall be subject to reasonable terms and conditions, including notice to Grantee, which will avoid interference with Grantee's construction activities. This reservation includes, but is not limited to the right to perform investigations and surveys, drillings, borings, data and record compilations, as well as install monitoring wells, pumping wells, treatment facilities, meters and other related items or activities.

THIS IS TO CERTIFY, that the State of California, acting by and through the Department of Transportation (pursuant to Government Code Section 27281), hereby accepts for public purposes the real property described in the within deed and agrees to itself, its successors and assigns forever to abide by the conditions set forth in said deed.

IN WITNESS WHEREOF, I have hereunto set my hand
this 26th day of October, 2000.

JEFF MORALES
Director
State of California
Department of Transportation

By _____
Attorney in Fact

STATE OF CALIFORNIA }
} ss.
COUNTY OF

On this 26th day of October 2000 before me, Suzann L. Goodhue, the undersigned Notary Public, personally appeared R.A. Macpherson personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

SUZANN L. GOODHUE
Commission # 1259846
Notary Public - California
Alameda County
My Comm. Expires May 5, 2004

WITNESS my hand and official seal.

_____
Signature of Notary

APPROVED AS TO FORM AND PROCEDURE:
this 25th day of October, 2000.

State of California
Department of Transportation

By _____
Assistant Chief Counsel

IN WITNESS WHEREOF, I, Michael G. Ritchie, Division Administrator, pursuant to delegations of authority from the Secretary of Transportation and the Federal Highway Administrator by virtue of authority in me vested by law, have hereunto subscribed my name as of the day and year first above written.

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
MICHAEL G. RITCHIE
California Division Administrator

STATE OF CALIFORNIA }
ss.
COUNTY OF Sacramento

On this 25 day of October 2000 before me, William J. Haas, the undersigned Notary Public, personally appeared Michael G Ritchie personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

WILLIAM J. HAAS
Commission # 1203731
Notary Public - California
Sacramento County
My Comm. Expires Dec 4, 2002

WITNESS my hand and official seal.

_____
Signature of Notary

"EXHIBIT A"

Portions of those parcels of land situate on Yerba Buena Island, in the City and County of San Francisco, State of California, being described as "NAVAL RESERVATION", "ARMY RESERVATION" and "LIGHTHOUSE RESERVATION" on the map entitled "MAP OF NAVAL RESERVATION ON YERBA BUENA ISLAND CALIFORNIA HELD UNDER AUTHORITY OF PRESIDENTIAL RESERVATION OF NOVEMBER 6, 1850, CONFIRMED BY STATE STATUTE ON MARCH 2.1897, AND EXTENDED BY STATE ACT OF MARCH 9, 1897", more particularly described as follows:

Parcel 57935-1

Commencing for reference at the U.S. Reservation Monument #102, also known as "Granite", as shown on said Naval Reservation map, said station bears South 77°41'15"East 1856.08 feet from the U.S.C. & G.S. triangulation station "Goat"; thence South 30°20'10" West 773.64 feet more or less to the intersection of the centerline of the existing San Francisco-Oakland Bay Bridge with the most southwesterly line of the "Permanent State Right of Way" granted to the State of California in the Agreement between the United States of America and the State of California, recorded February 14, 1963, in Book A542, at Page 874 et seq., Official Records of the City and County of San Francisco, last said line described as "(29) North 50°06'12" West along the southwesterly edge of the footing of "Yerba Buena Cable Anchorage", 102.00 feet"; thence along said centerline South 41°31'00" West 93.77 feet to the Meander at Mean Low Water as shown on said Map of Naval Reservation and the TRUE POINT OF BEGINNING; thence along said meander line the following 5 courses and distances: 1) North 20°57'00" East 10.82 feet; 2) North 49°11'00" West 34.20 feet; 3) North 83°08'00" West 55.30 feet; 4) South 54°40'00" West 70.80 feet, and 5) North 62°30'00" West 1.45 feet to a line parallel with and distant 101.00 feet Northwesterly, measured at right angles, from said centerline of said bridge; thence along said parallel line, North 41°31'00" East 413.77 feet to a point on the Northwesterly extension of the course described as "(33) South 50°06'12" East 18.00 feet" in said Agreement; thence along said extension and line, South 48°29'00" East 62.00 feet; thence continuing along the general Northwesterly line of said Agreement the following 2 courses and distances: 1) North 41°31'00" East 145.49 feet; and 2) North 48°29'00" West 62.00 feet; thence along the course described in said Agreement as "(36) North 39°53'48" East 103.00 feet" and its Northeasterly extension, North 41°31'00" East 636.96 feet to a point on the course described in said Agreement as "(3) North 50°06'12" West 68.10 feet"; thence along said course and continuing along the general Northwesterly line of said Agreement the following 4 courses and distances: 1) North 48°29'00" West 7.10 feet; 2) North 41°31'00" East 487.47 feet; 3) North 48°29'00" West 37.50 feet; and 4) North 41°31'00" East 9.50 feet; thence leaving said Agreement line, North 48°29'00" West 67.61 feet; thence North 41°31'00" East 125.15 feet; thence South 71°22'28" East 50.28 feet to the beginning of a non-tangent curve to the right, having a radius of 3120.08 feet; thence from a tangent that bears North 42°25'37" East along said curve to the right through a central angle of 5°45'42" an arc length of 313.74 feet, to a point hereinafter designated as Point "B"; thence continuing northeasterly along last said curve from a tangent that bears North 48° 11'18" East through a central angle of 02° 37'35", an arc length of 143.03 feet; thence North 36°28'00" East 29.56 feet; thence South 53°32'00" East 13.12 feet to the beginning of a non-tangent curve to the right, having a radius of 3018.37 feet; thence from a tangent that bears North 36°28'01" East along said curve to the right through a central angle of 16°28'37", an arc length of 868.01 feet; thence North 37°03'22" West 9.88 feet to the beginning of a non-tangent curve to the right, having a radius of 3028.21 feet; thence from a tangent that bears North 52°56'38" East along

said curve to the right through a central angle of 2°25'41", an arc length of 128.33 feet; thence North 55°22'19" East 17.00 feet to the Mean Low Water Line; thence along said line the following 17 courses and distances: 1) South 88°47'09" East 12.64 feet; 2) North 67°07'09" East 134.38 feet; 3) North 49°16'20" East 38.77 feet; 4) North 63°52'28" East 86.93 feet; 5) North 79°31'40" East 43.70 feet; 6) South 50°29'09" East 145.95 feet; 7) South 31°56'07" East 59.57 feet; 8) South 14°02'11" West 61.54 feet, to a point hereinafter designated as Point "A"; 9) South 4°27'24" East 66.60 feet; 10) South 18°24'11" West 60.78 feet; 11) South 33°17'47" West 148.53 feet; 12) South 30°34'41" East 84.67 feet; 13) South 54°11'06" West 72.22 feet; 14) South 66°22'18" West 64.58 feet; 15) North 87°45'43" West 59.70 feet; 16) South 56°32'26" West 343.31 feet; and 17) South 44°19'32" West 83.05 feet, to the southeasterly extension of the northeasterly line of Parcel 5, as shown on the Navy Land Transfer Coast Guard Parcel Map, EFAWEST Drawing Number C-104378, dated August 23, 1999, and transferred in the Letter of Transfer from the Department of the Navy to the U.S. Coast Guard, effective April 17, 1998, accepted April 23, 1998; thence along said extension and line and continuing along the boundary of said Parcel 5, the following two courses and distances: 1) North 35°38'09" West 272.50 feet, 2) South 54°21'51" West 208.73 feet, to the most northwesterly corner of land of the U.S. Coast Guard, as described in the Letter of Transfer from the Department of the Navy to the U.S. Coast Guard, acknowledged and accepted October 29, 1974; thence along said Letter of Transfer line, the following 4 courses and distances: 1) South 37°03'45" West 289.98 feet; 2) South 18°33'24" West 102.17 feet; 3) South 13°53'55" West 67.09 feet; and 4) South 22°18'09" West 88.68 feet, to the most northeasterly corner of Parcel 4, as shown on said Navy Land Transfer Coast Guard Parcel Map, EFAWEST Drawing Number C-104378, dated August 23, 1999, and transferred in the Letter of Transfer from the Department of the Navy to the U.S. Coast Guard, effective April 17, 1998, accepted April 23, 1998; thence along the northwesterly and southwesterly lines of said Parcel 4, the following two courses and distances: 1) South 42°09'33" West 229.65 feet; 2) South 29°09'38" East 69.62 feet; thence South 85°41'23" West 81.26 feet; thence North 16°33'18" West 82.21 feet, to a point on the course described in said Agreement between the United States of America and the State of California, recorded February 14, 1963, as "(14) South 39°53'48" West 40.48 feet"; thence along said course and the general Southeasterly line of said Agreement the following 5 courses and distances: 1) South 41°31'00" West 11.48 feet; 2) South 83°43'52" West 8.44 feet; 3) South 41°31'00" West 221.26 feet; 4) South 21°28'58" West 108.00 feet; and 5) South 41°31'00" West 60.33 feet to the northwesterly line of Parcel 1, as shown on said Navy Land Transfer Coast Guard Parcel Map, EFAWEST Drawing Number C-104378, dated August 23, 1999, and transferred in the Letter of Transfer from the Department of the Navy to the U.S. Coast Guard, effective April 17, 1998, accepted April 23, 1998, being a point on a non-tangent curve to the left, having a radius of 227.02 feet; thence along the general northwesterly line of said Parcel 1, the following 12 courses and distances: 1) from a tangent that bears North 84°37'13" West, along said curve to the left through a central angle of 2°33'43" an arc length of 10.15 feet, to the beginning of a non-tangent curve to the left, having a radius of 148.81 feet; 2) from a tangent that bears South 89°21'31" West, along said curve to the left through a central angle of 47°50'31" an arc length of 124.26 feet; 3) South 41°31'00" West 28.30 feet; 4) North 48°29'00" West 32.00 feet to the centerline of said bridge; 5) along said centerline, South 41°31'00" West 163.48 feet; 6) North 77°39'22" West 22.03 feet; 7) South 9°59'58" West 42.80 feet; 8) North 76°50'42" West 28.28 feet; 9) South 26°41'18" West 37.94 feet; 10) South 76°16'12" East 13.61 feet to said centerline of bridge; 11) along said centerline, South 41°31'00" West 266.16 feet; and 12) South 52°26'44" East 40.09 feet to a point on the course described in said Agreement as "(20) South 39°53'48" West along the Southeasterly limits of the tunnel structure of said Bridge, 534.00 feet"; thence along said line South 41°31'00" West 27.51 feet; thence continuing along said Agreement line, South 48°29'00" East 82.00 feet; thence along the course described in said Agreement as "(22) South 39°53'48" West 124.00 feet" and its Southwesterly extension, South 41°31'00" West 611.38 feet to said Meander at Mean Low Water of said map of

Naval Reservation; thence along said Meander line the following 4 courses and distances:
1) North 10°37'00" West 55.88 feet; 2) North 51°35'00" West 36.40 feet; 3) South 87°30'00" West 39.39 feet; and 4) North 20°57'00" East 37.58 feet to the centerline of said bridge and the TRUE POINT OF BEGINNING.

CONTAINING 19.53 acres, more or less.

Parcel 57935-2

Commencing for reference at the U.S. Reservation Monument #102, also known as "Granite", as shown on said Naval Reservation map, said station bears South 77°41'15"East 1856.08 feet from the U.S.C. & G.S. triangulation station "Goat"; thence South 21°39'00" West 897.50 feet to a point on the common boundary line between the U.S. NAVY and the U.S. COAST GUARD; thence along said common boundary line South 21°39'00" West 53.43 feet to a point on the Meander at Mean Low Water as shown on said Naval Reservation map and the TRUE POINT OF BEGINNING; thence continuing along said common boundary line South 5°27'00" West 555.28 feet to the southeasterly line of a 1000 foot strip of land described as "South 41°30'56" West" in that Agreement between the STATE OF CALIFORNIA and the SAN FRANCISCO PORT AUTHORITY, recorded February 27, 1969, in Book B315, at Page 786 et seq., Official Records of the City and County of San Francisco; thence along said line, South 41°31'00" West 366.08 feet to the Navy Boundary 900 feet (300 yards) Beyond Low Water Mark; thence along said boundary the following 7 courses and distances: 1) North 80°06'12" West 69.73 feet; 2) North 43°23'12" West 217.48 feet; 3) North 83°45'12" West 12.17 feet; 4) North 63°07'12" West 294.71 feet; 5) North 53°10'12" West 242.18 feet; 6) North 79°31'12" West 115.13 feet; and
7) North 68°00'12" West 94.33 feet to the northwesterly line of said 1000 foot strip of land; thence along last said line North 41°31'00" East 957.40 feet; thence South 48°29'00" East 328.79 feet to said Meander at Mean Low Water; thence along said line the following 10 courses and distances:
1) South 62°30'00" East 72.32 feet; 2) North 54°40'00" East 70.80 feet; 3) South 83°08'00" East 55.30 feet; 4) South 49°11'00" East 34.20 feet; 5) South 20°57'00" West 48.40 feet; 6) North 87°30'00" East 39.39 feet; 7) South 51°35'00" East 36.40 feet; 8) South 10°37'00" East 59.40 feet;
9) South 42°46'00" East 40.69 feet; and 10) South 79°29'00" East 9.21 feet to the TRUE POINT OF BEGINNING.

CONTAINING 18.46 acres, more or less.

Parcel 57935-3

Beginning at a point on the Mean Low Water Line hereinbefore designated as Point "A" being the TRUE POINT OF BEGINNING; thence along said line the following 9 courses and distances:
1) South 4°27'24" East 66.60 feet; 2) South 18°24'11" West 60.78 feet; 3) South 33°17'47" West 148.53 feet; 4) South 30°34'41" East 84.67 feet; 5) South 54°11'06" West 72.22 feet; 6) South 66°22'18" West 64.58 feet; 7) North 87°45'43" West 59.70 feet; 8) South 56°32'26" West 343.31 feet;
9) South 44°19'32" West 83.05 feet, to the southeasterly extension of the northeasterly line of Parcel 5, as shown on the Navy Land Transfer Coast Guard Parcel Map, EFAWEST Drawing Number C-104378, dated August 23, 1999, and transferred in the Letter of Transfer from the Department of the Navy to the U.S. Coast Guard, effective April 17, 1998, accepted April 23, 1998; thence northwesterly, along said extension, North 35°38'09" West 1.64 feet, to the southeasterly line of said Parcel 5 and the approximate Mean High Water Line; thence along said southeasterly line of Parcel 5, South 46°58'36" West 44.56 feet; thence leaving said southeasterly line of Parcel 5, South 24°34'31" West 67.52 feet; thence South 35°00'26" East 304.72 feet to the beginning of a non-tangent curve to the right, having a radius of 4245.39 feet; thence from a tangent that bears North 47°56'35" East along said curve to the right through a central angle of 2°33'55", an arc length of 190.08 feet; thence South 63°11'55" East 199.24 feet to the beginning of a non-tangent curve to the right, having a radius of 3001.96 feet; thence from a tangent that

bears North 68°38'25" East along said curve to the right through a central angle of 14°27'56", an arc length of 757.91 feet; thence North 83°06'21" East 111.99 feet, to the Navy Boundary 900 feet (300 yards) Beyond Low Water Mark; thence along said boundary the following 6 courses and distances: 1) North 44°47'27" East 101.96 feet; 2) North 13°54'14" East 519.38 feet; 3) North 4°41'30" West 539.47 feet; 4) North 30°34'41" West 394.49 feet; 5) North 50°05'00" West 386.14 feet; and 6) North 76°13'03" West 180.52 feet; thence leaving said boundary, South 55°22'19" West 1035.36 feet to the beginning of a tangent curve to the left, having a radius of 3444.88 feet; thence along said curve to the left through a central angle of 5°36'17", an arc length of 336.98 feet; thence North 89°40'17" West 360.50 feet; thence South 1°29'47" West 360.48 feet to said Mean Low Water Line; thence along said line the following 15 courses and distances: 1) North 76°17'43" East 149.10 feet; 2) South 85°46'22" East 168.35 feet; 3) North 79°05'51" East 105.44 feet; 4) North 42°45'10" East 40.74 feet; 5) North 9°39'08" East 46.53 feet; 6) North 44°39'43" East 63.57 feet; 7) North 77°17'13" East 308.54 feet; 8) South 88°47'09" East 103.37 feet; 9) North 67°07'09" East 134.38 feet; 10) North 49°16'20" East 38.77 feet; 11) North 63°52'28" East 86.93 feet; 12) North 79°31'40" East 43.70 feet; 13) South 50°29'09" East 145.95 feet; 14) South 31°56'07" East 59.57 feet; and 15) South 14°02'11" West 61.54 feet to the TRUE POINT OF BEGINNING.

CONTAINING 50.93 acres, more or less.

Parcel 57935-4

Beginning at the Northwesterly terminus of the course described as "(3) North 50°06'12" West 68.10 feet" in the "Permanent State Right of Way" granted to the State of California in the Agreement between the United States of America and the State of California, recorded February 14, 1963, in Book A542, at Page 874 et seq., Official Records of the City and County of San Francisco, being the TRUE POINT OF BEGINNING; thence Northwesterly along an extension of said course (3), North 48°29'00" West 37.48 feet; thence North 41°31'00" East 406.51 feet; thence North 48°29'00" West 100.61 feet; thence North 41°31'00" East 186.98 feet; thence North 74°14'52" West 70.89 feet; thence North 41°31'00" East 183.70 feet; thence South 67°54'53" East 69.01 feet; thence North 30°12'22" East 154.15 feet; thence South 41°19'03" East 70.42 feet; thence North 77°30'27" East 40.33 feet; thence North 39°46'08" East 49.74 feet; thence North 21°42'42" West 109.17 feet; thence North 1°29'47" East 431.17 feet to the Mean Low Water Line; thence along said line the following 8 courses and distances: 1) North 76°17'43" East 149.10 feet; 2) South 85°46'22" East 168.35 feet; 3) North 79°05'51" East 105.44 feet; 4) North 42°45'10" East 40.74 feet; 5) North 9°39'08" East 46.53 feet; 6) North 44°39'43" East 63.57 feet; 7) North 77°17'13" East 308.54 feet; and 8) South 88°47'09" East 90.73 feet to the general Northwesterly line of Parcel 57935-1; thence leaving said Mean Low Water Line and running along said general Northwesterly line of Parcel 57935-1, the following 14 courses and distances: 1) South 55°22'19" West 17.00 feet to the beginning of a tangent curve to the left, having a radius of 3028.21 feet; 2) along said curve to the left through a central angle of 2°25'41", an arc length of 128.33 feet; 3) South 37°03'22" East 9.88 feet to the beginning of a non-tangent curve to the left, having a radius of 3018.37 feet; 4) from a tangent that bears South 52°56'38" West, along said curve to the left through a central angle of 16°28'37", an arc length of 868.01 feet; 5) South 32°39'26" East 80.30 feet; 6) South 41°53'22" West 129.06 feet, to the beginning of a non-tangent curve to the left, having a radius of 149.21 feet; 7) from a tangent that bears North 38°21'35" West, along said curve to the left through a central angle of 42°47'03" an arc length of 111.42 feet, to the beginning of a non-tangent curve to the left, having a radius of 3120.08 feet; 8) from a tangent that bears South 48°11'18" West, along said curve to the left through a central angle of 5°45'42", an arc length of 313.74 feet; 9) North 71°22'28" West 50.28 feet; 10) South 41°31'00" West 125.15 feet; 11) South 48°29'00" East 67.61 feet to the course described as "(6) North 39°53'48" East 160.89 feet" in said

Agreement between the United States of America and the State of California; thence along said line and the general Northwesterly line of said Agreement the following courses and distances:
12) South 41°31'00" West 9.50 feet; 13) South 48°29'00" East 37.50 feet; and 14) South 41°31'00" West 487.47 feet to the TRUE POINT OF BEGINNING.

CONTAINING 7.79 acres, more or less.

Parcel 57935-5

Beginning at a point hereinbefore designated as Point "B", being a point on a 3120.08-foot radius curve, and being the TRUE POINT OF BEGINNING; thence continuing along said 3120.08-foot radius curve to the right, from a tangent that bears North 48°11'18" East through a central angle of 2°37'35" an arc length of 143.03 feet; thence North 36°28'00" East 29.56 feet; thence South 53°32'00" East 13.12 feet. to the general Northwesterly line of Parcel 57935-1; thence along said general Northwesterly line of Parcel 57935-1, the following 3 courses and distances: 1) South 32°39'26" East 80.30 feet;
2) South 41°53'22" West 129.06 feet, to the beginning of a non-tangent curve to the left having a radius of 149.21 feet; and 3) from a tangent that bears North 38°21'35" West along said curve to the left, through a central angle of 42°47'03" an arc length of 111.42 feet, to said Point "B" and the TRUE POINT OF BEGINNING.

CONTAINING 0.31 acres, more or less.

Parcel 57935-6

Commencing at a point on the Mean Low Water Line hereinbefore designated as Point "A"; thence North 24°05'38" West 57.32 feet, to a point which is at the intersection of a line being 5.00 feet, measured at right angles, from the northeasterly edge of Building 262 and a line being 5.00 feet, measured at right angles, from the southeasterly edge of Building 262, being the TRUE POINT OF BEGINNING; thence along a perimeter line 5.00 feet off and parallel to the outermost edge of Building 262, the following 4 courses and distances: 1) North 45°33'16" West 171.90 feet; 2) South 44°26'44" West 86.64 feet, 3) South 45°33'16" East 171.90 feet; and 4) North 44°26'44" East 86.64 feet, to the TRUE POINT OF BEGINNING.

CONTAINING 0.34 acres, more or less.

The bearings and distances used in the above descriptions are based on the California Coordinate System of 1983, Zone 3. Multiply the above distances by 1.0000680 to obtain ground level distances.

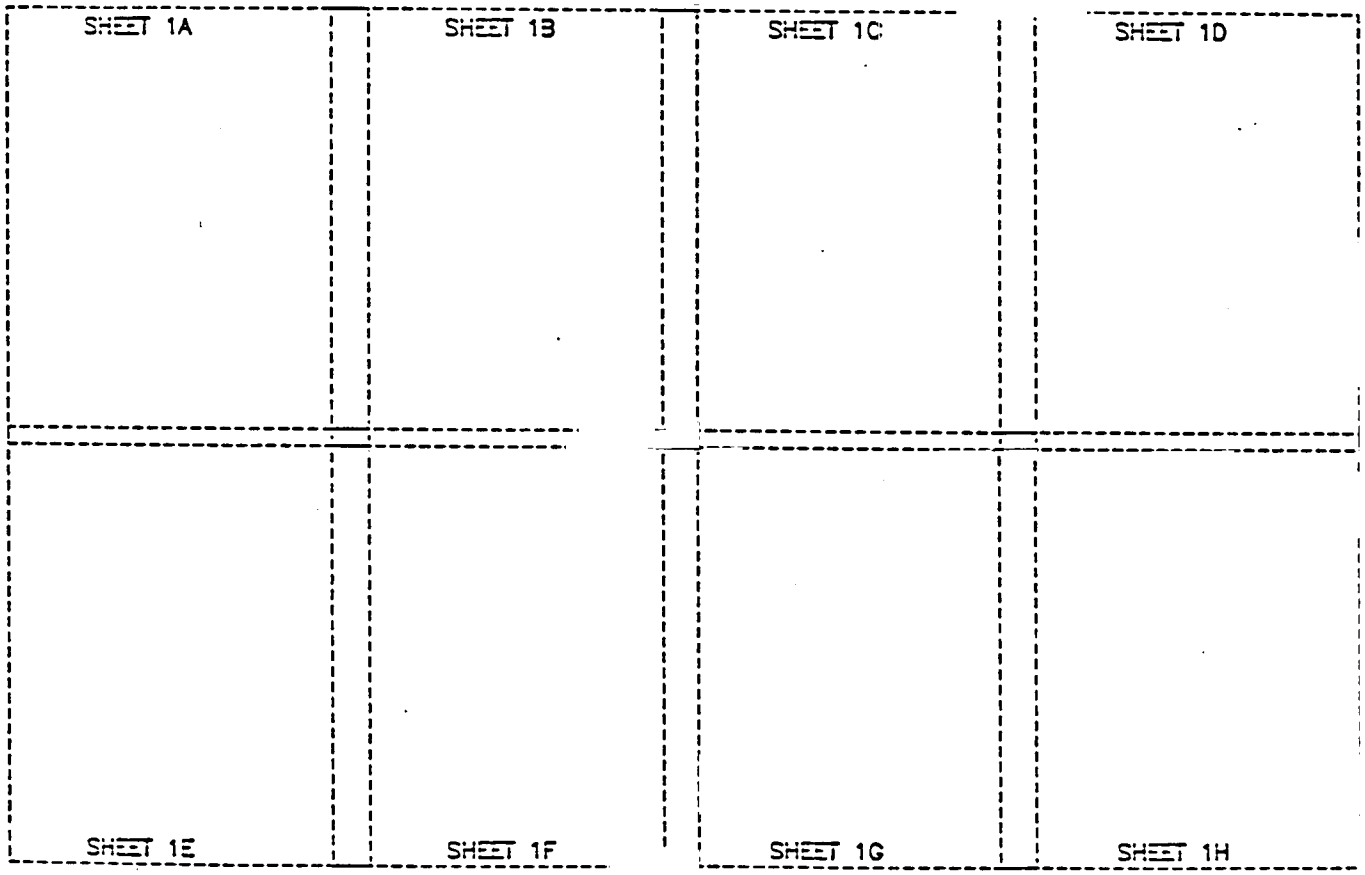
This real property description has been prepared by me, or under my direction, in conformance with the Professional Land Surveyors Act.

Signature _____
Licensed Land Surveyor

Date 9-18-00

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000580 TO OBTAIN GROUND LEVEL DISTANCES.

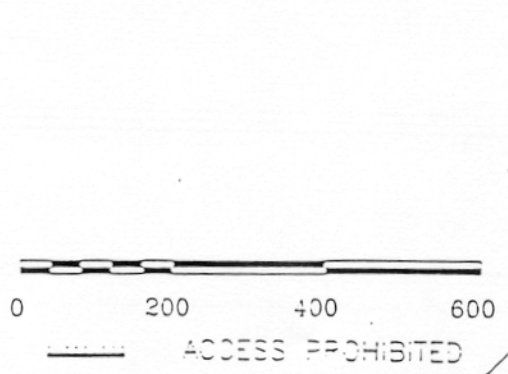
(NO SCALE)



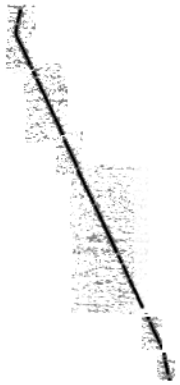
(SHEET 1 INDEX)

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04	EXHIBIT B FEDERAL LAND TRANSFER MAP
DR. BY: JZ | DATE: 8/11/00	CO. SF | RTE. 80 | P.M. 7.51/8.26
CK'D BY: JVH	DWG. NO. SHEET 1

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000680 TO OBTAIN GROUND LEVEL DISTANCES.



SEE SHEET 1B



LINE TABLE

LINE #	BEARING	DISTANCE
L1	S85°47'09"E	12.64'
L2	S85°47'09"E	90.73'
L3	N77°17'13"E	308.84'
L4	N44°39'43"E	63.57'
L5	N09°39'05"E	46.53'
L6	N42°45'10"E	40.74'
L7	N79°05'51"E	105.44'
L8	S85°46'22"E	168.35'
L9	N76°17'43"E	149.10'

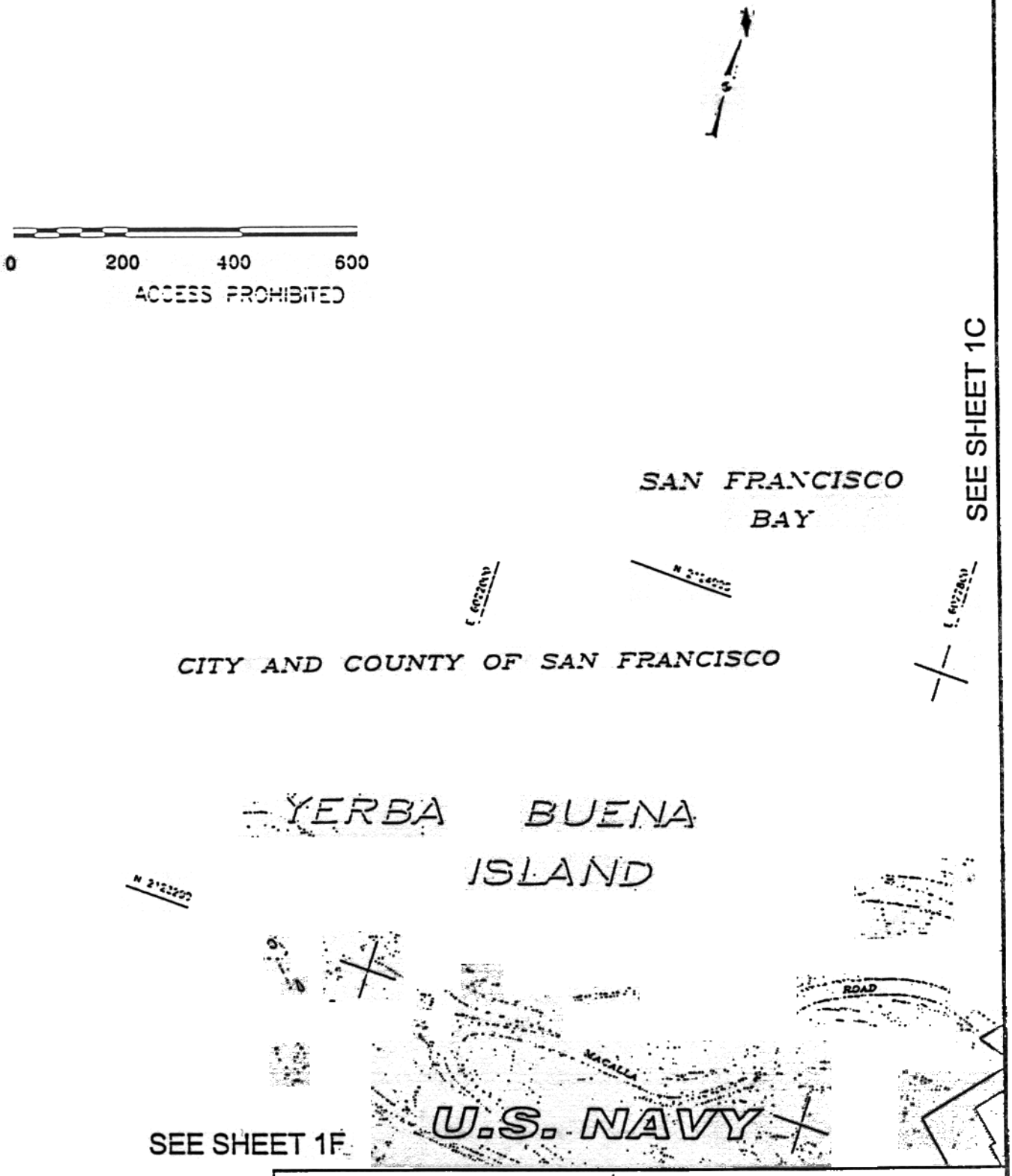
SEE SHEET 1E

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.51/8.26
CK'D BY: JVH		DWG. NO. SHEET 1A		

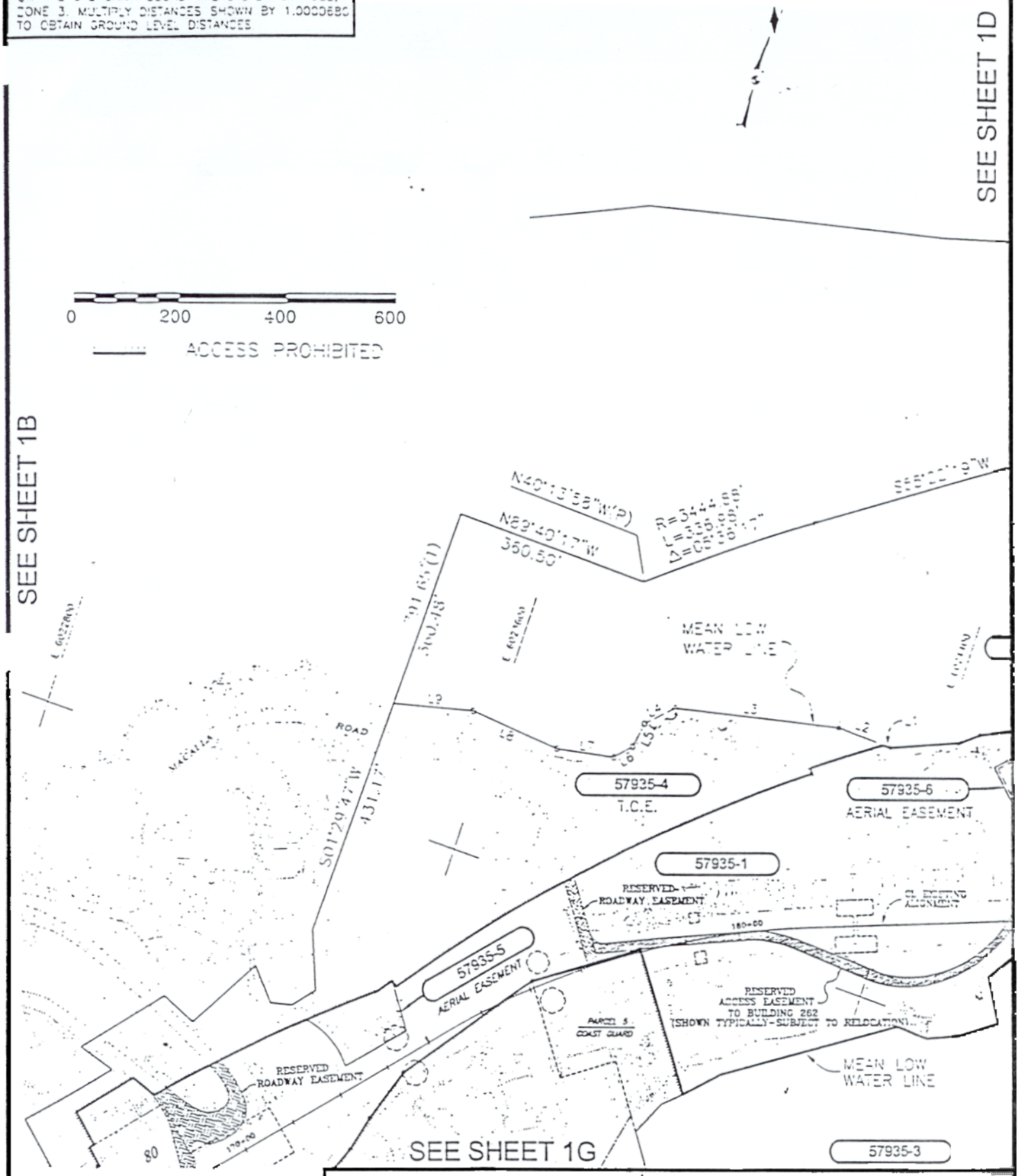
COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000680 TO OBTAIN GROUND LEVEL DISTANCES.



STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04	**EXHIBIT B** FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO.	SHEET 1B	

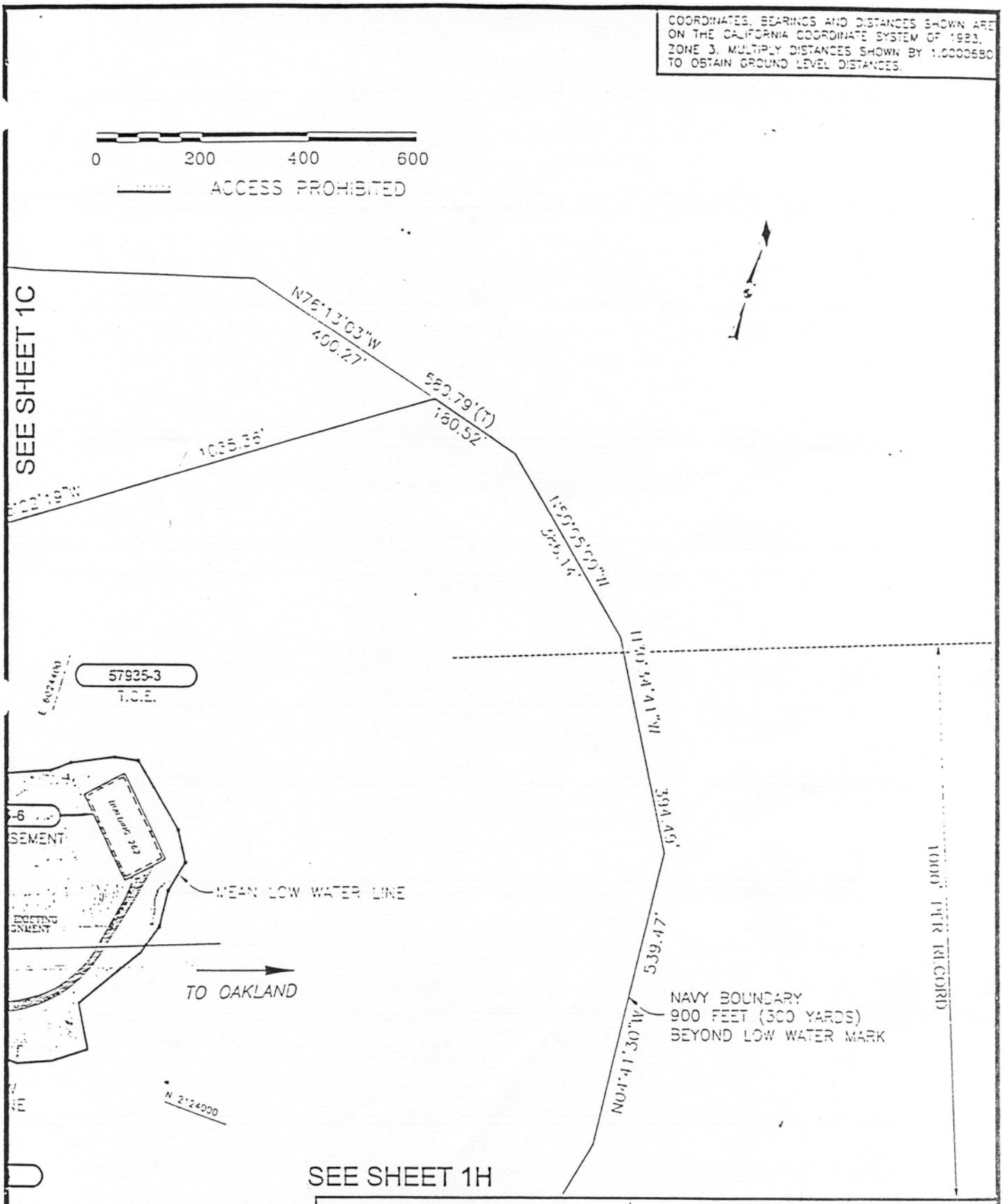
COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.00006BC TO OBTAIN GROUND LEVEL DISTANCES



STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

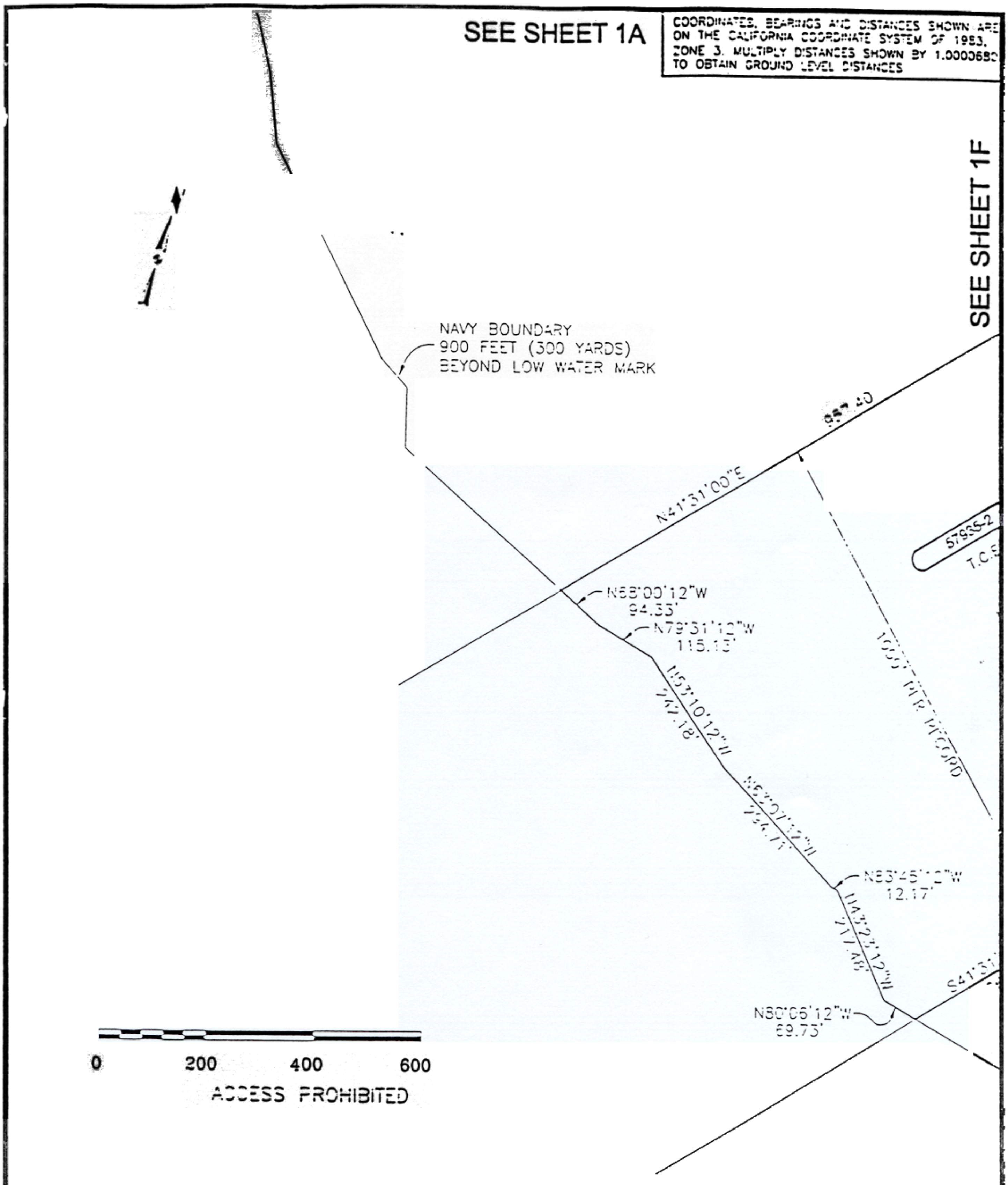
DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.51/8.26
CK'D BY: JVH		DWG. NO. SHEET 1C		



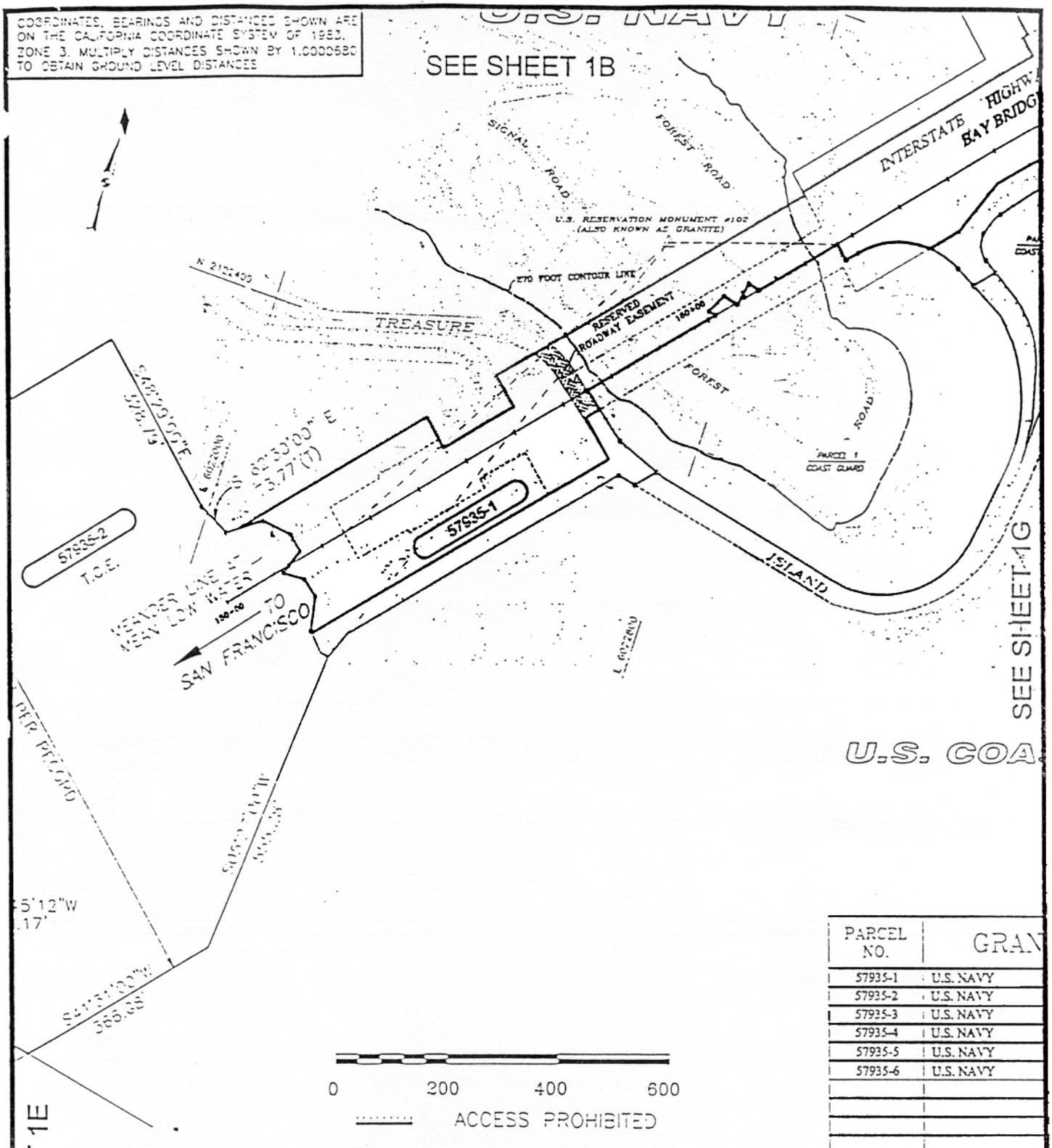
STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO. SHEET 1D		



STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04		EXHIBIT B FEDERAL LAND TRANSFER MAP		
DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO.	SHEET 1E	

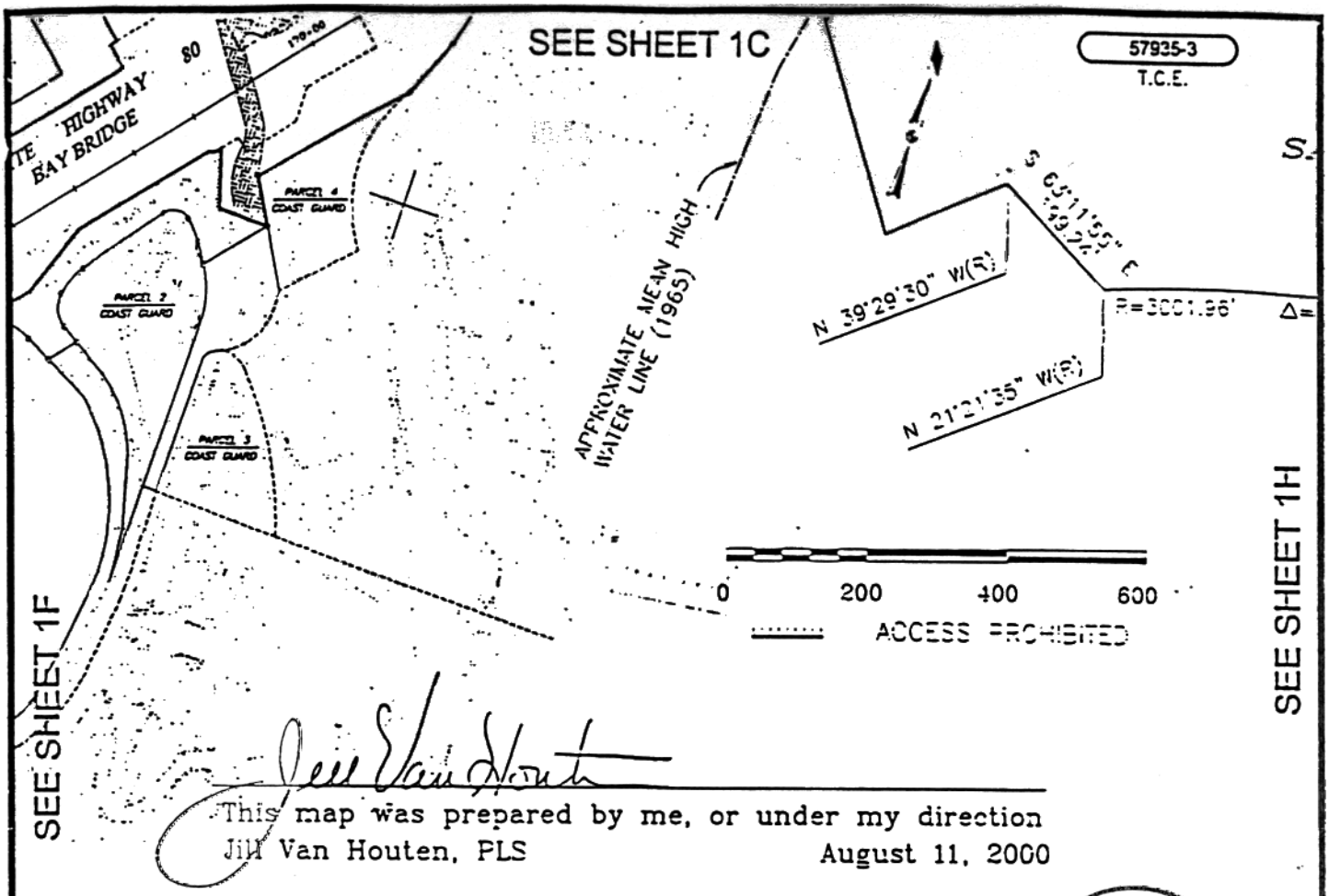


PARCEL NO.	GRAN
57935-1	U.S. NAVY
57935-2	U.S. NAVY
57935-3	U.S. NAVY
57935-4	U.S. NAVY
57935-5	U.S. NAVY
57935-6	U.S. NAVY

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO. SHEET 1F		



This map was prepared by me, or under my direction
Jill Van Houten, PLS August 11, 2000

COAST GUARD

LICENSED LAND SURVEYOR
JILL VAN HOUTEN
No. L S 7215
Exp. 3-31-04
STATE OF CALIFORNIA

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000680 TO OBTAIN GROUND LEVEL DISTANCES.

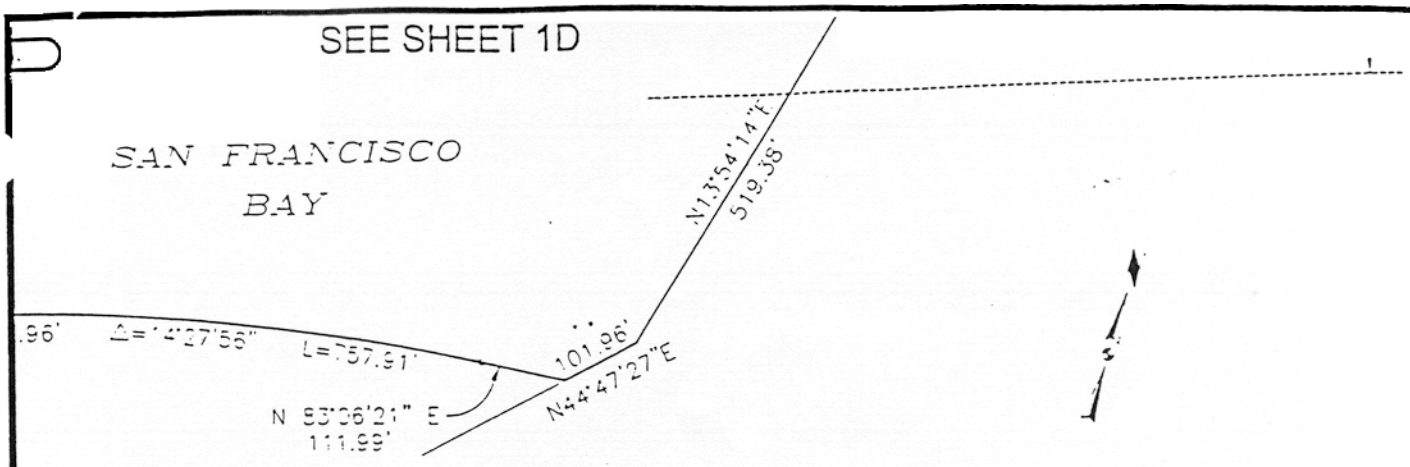
GRANTOR	AREAS (SQ. FT.) ACRES TOTAL OWNERSHIP	R/W	REM.	EXCESS	REMARKS	INSTR	DATE	BOOK OR REEL	PAGE OR IMAGE
U.S. NAVY	INDEF.	19.53	INDEF.		Including 6.80 acres Existing Highway & Bridge Easement				
U.S. NAVY	INDEF.				18.46 Ac. Temporary Construction Easement				
U.S. NAVY	INDEF.				50.93 Ac. Temporary Construction Easement				
U.S. NAVY	INDEF.				7.79 Ac. Temporary Construction Easement				
U.S. NAVY	INDEF.				0.31 Ac. Aerial Easement				
U.S. NAVY	INDEF.				0.34 Ac. Aerial Easement				

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO.	SHEET 1G	

SEE SHEET 1D



ACCESS PROHIBITED

SEE SHEET 1G

NOTE:

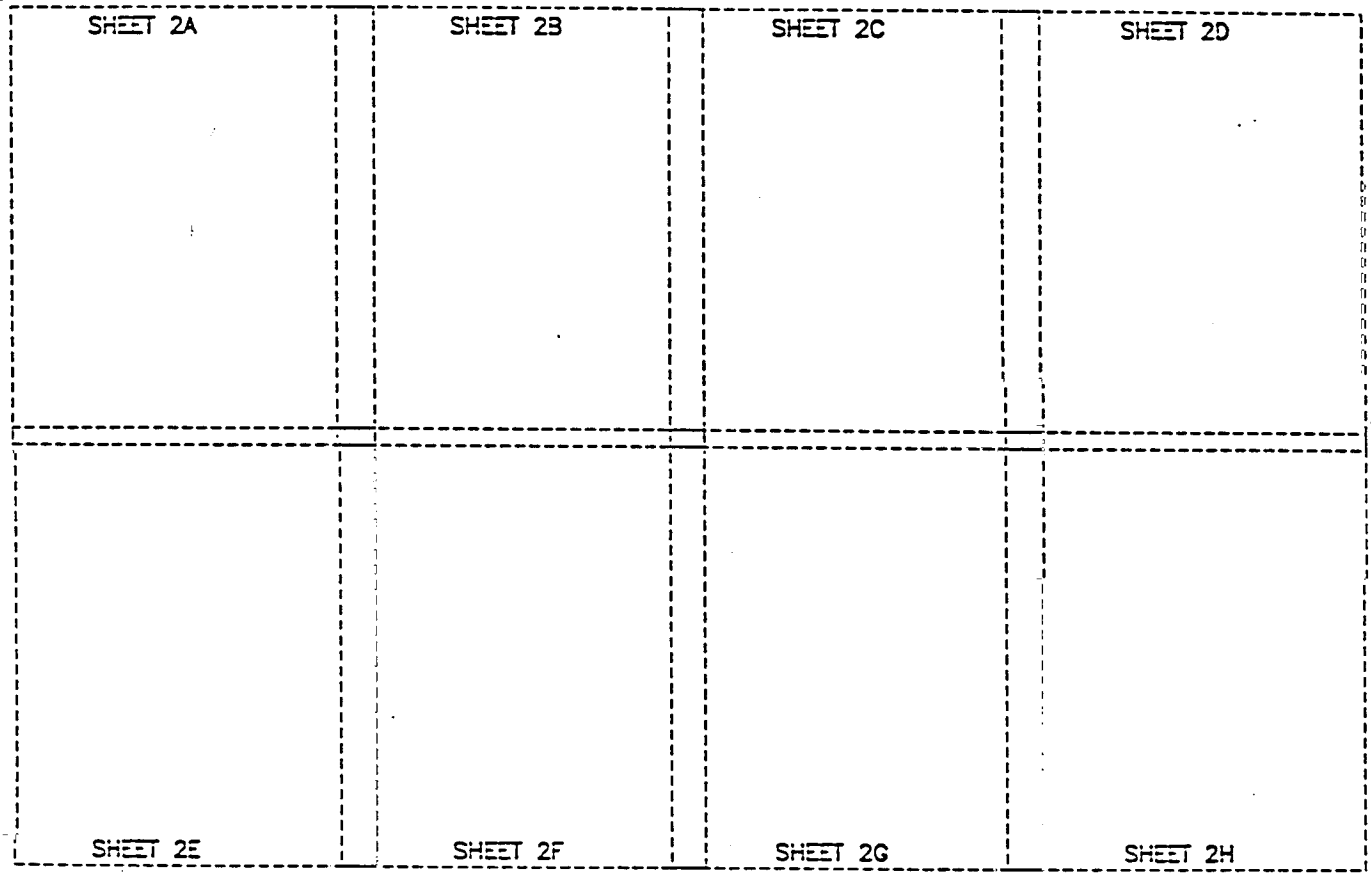
SEE SHEET 2 FOR FURTHER DETAILS

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000680 TO OBTAIN GROUND LEVEL DISTANCES.

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04	**EXHIBIT B** **FEDERAL LAND TRANSFER MAP**
DR. BY: JZ | DATE: 8/11/00 CK'D BY: JVH	CO. SF | RTE. 80 | P.M. 7.51/8.26 DWG. NO. SHEET 1H

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000680 TO OBTAIN GROUND LEVEL DISTANCES.

(NO SCALE)



(SHEET 2 INDEX)

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04	EXHIBIT B FEDERAL LAND TRANSFER MAP
DR. BY: JZ | DATE: 8/11/00 CK'D BY: JVH	CO. SF | RTE. 80 | P.M. 7.61/8.26 DWG. NO. SHEET 2

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.000068C TO OBTAIN GROUND LEVEL DISTANCES.

E. 6022000

N

CITY AND COUNTY

CURVE NOS.	RADII	DELTA	LENGTH	CHORD BEARING & DISTANCE
C-1	148.81'	47°50'31"	124.26'	S 65°26'13" W 120.67'
C-2	227.02'	02°33'43"	10.15'	N 85°54'04" W 10.15'

N. 2123200

SEE SHEET 2B

0 100 200 300

ACCESS PROHIBITED

MACALIA

U.S. N

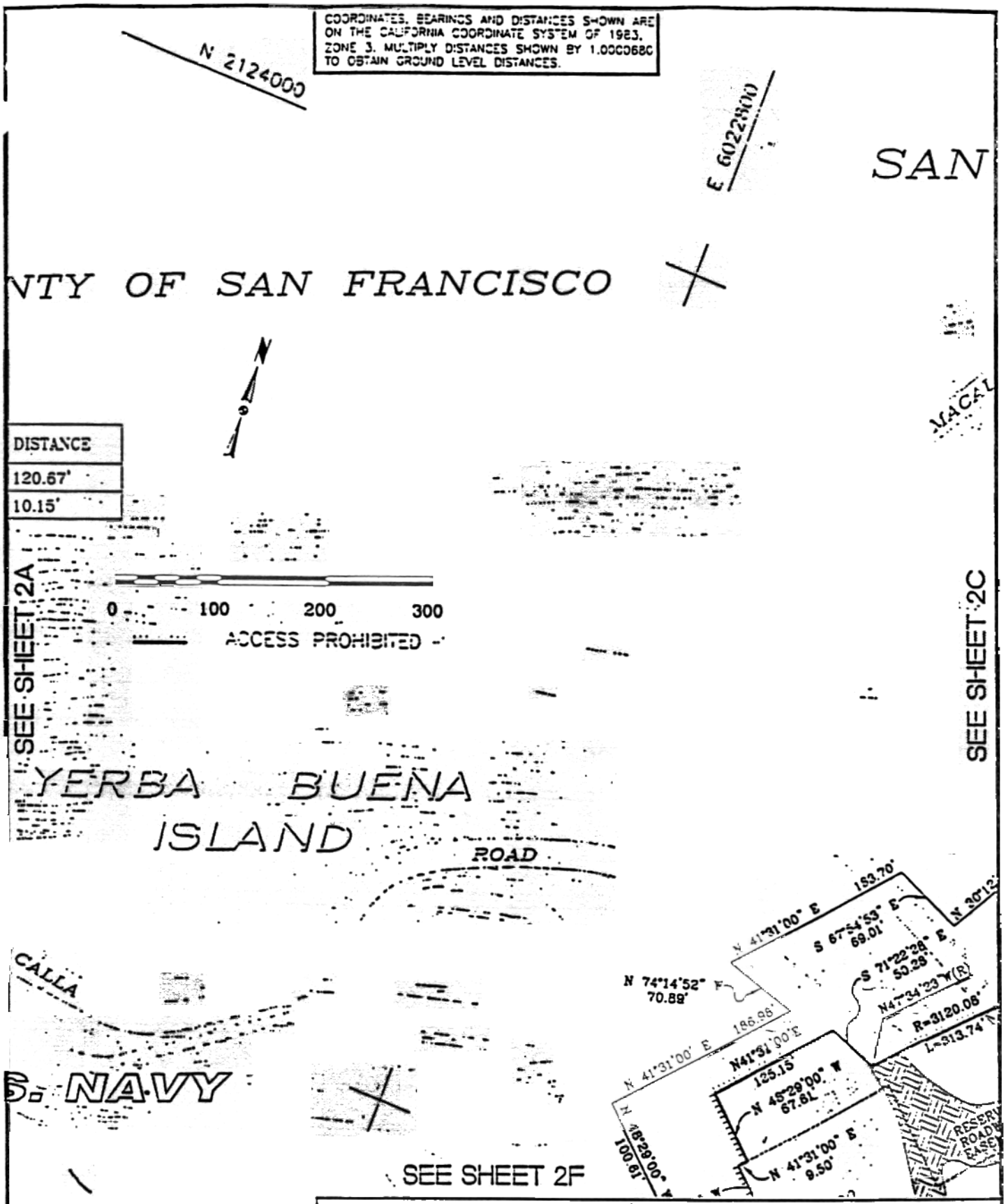
ORB CENTERLINE

SEE SHEET 2E

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO. SHEET 2A	

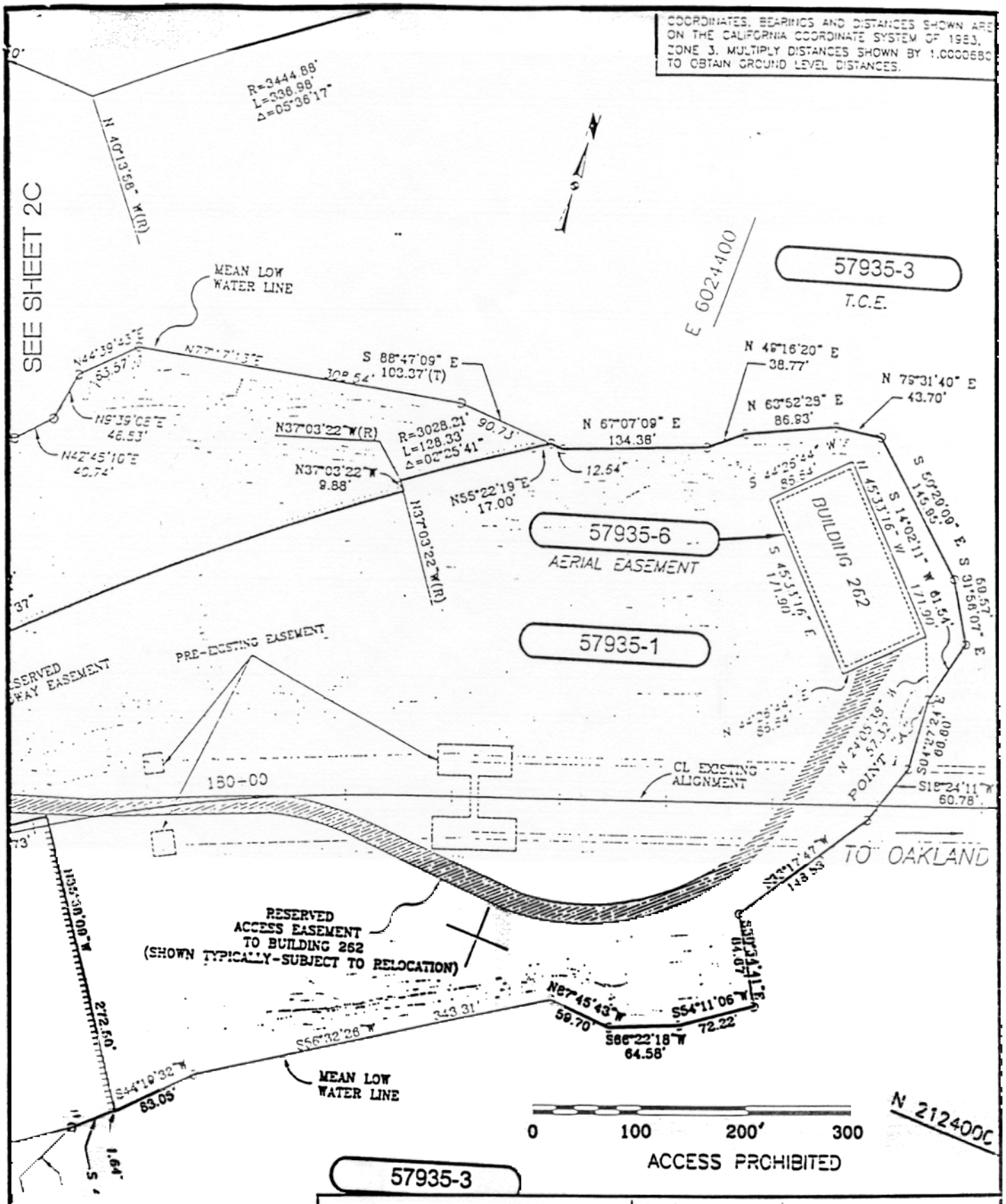


STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04	EXHIBIT B FEDERAL LAND TRANSFER MAP
DR. BY: JZ | DATE: 8/11/00 JVH	CO. SF | RTE. 80 | P.M. 7.61/8.26 DWG. NO. SHEET 2B

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

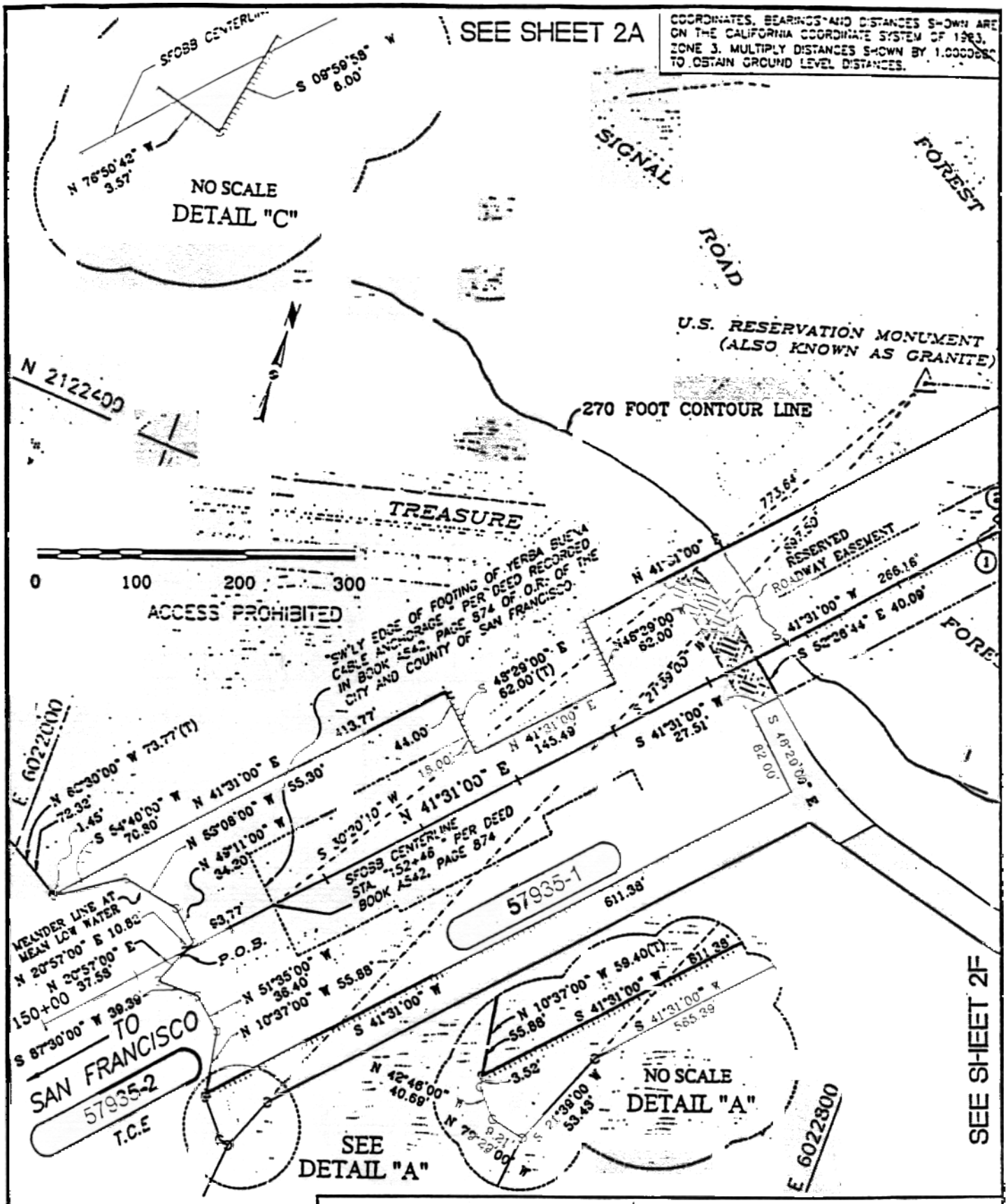
EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.61/8.26
CK'D BY: JVH		DWG. NO. SHEET 2C		



STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04		EXHIBIT B FEDERAL LAND TRANSFER MAP	
DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.51/8.25
CK'D BY: JVH		DWG. NO. SHEET 2D	

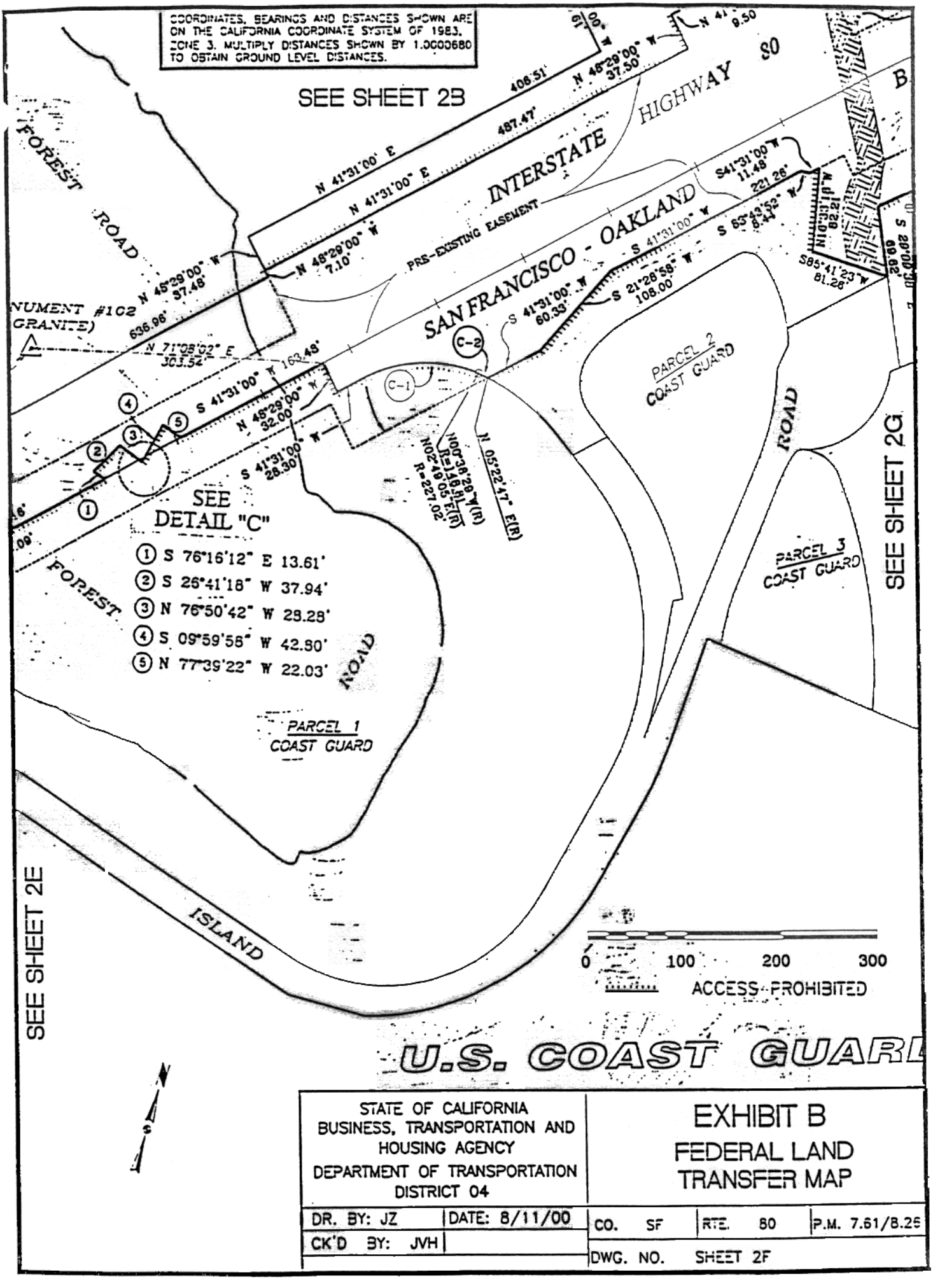
SEE SHEET 2H



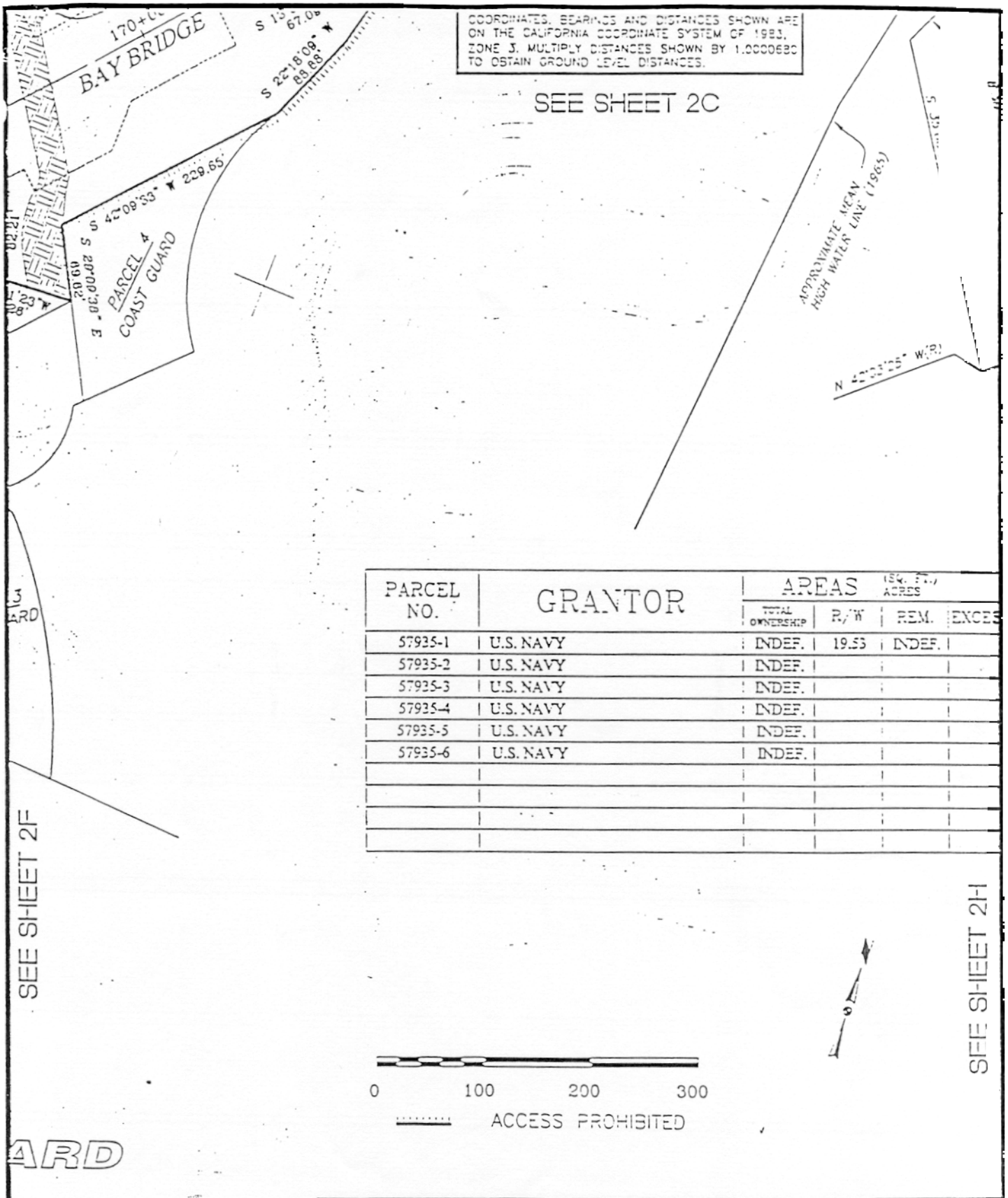
STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.51/8.25
CK'D BY: JVH		DWG. NO. SHEET 2E		



STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04	EXHIBIT B FEDERAL LAND TRANSFER MAP
DR. BY: JZ | DATE: 8/11/00 CK'D BY: JVH	CO. SF | RTE. 80 | P.M. 7.61/8.26 DWG. NO. SHEET 2F



PARCEL NO.	GRANTOR	AREAS (SQ. FT.) ACRES			
		TOTAL OWNERSHIP	R/W	REM.	EXCESS
57935-1	U.S. NAVY	INDEF.	19.53	INDEF.	
57935-2	U.S. NAVY	INDEF.			
57935-3	U.S. NAVY	INDEF.			
57935-4	U.S. NAVY	INDEF.			
57935-5	U.S. NAVY	INDEF.			
57935-6	U.S. NAVY	INDEF.			

ARD

STATE OF CALIFORNIA
BUSINESS, TRANSPORTATION AND HOUSING AGENCY
DEPARTMENT OF TRANSPORTATION
DISTRICT 04

EXHIBIT B
FEDERAL LAND TRANSFER MAP

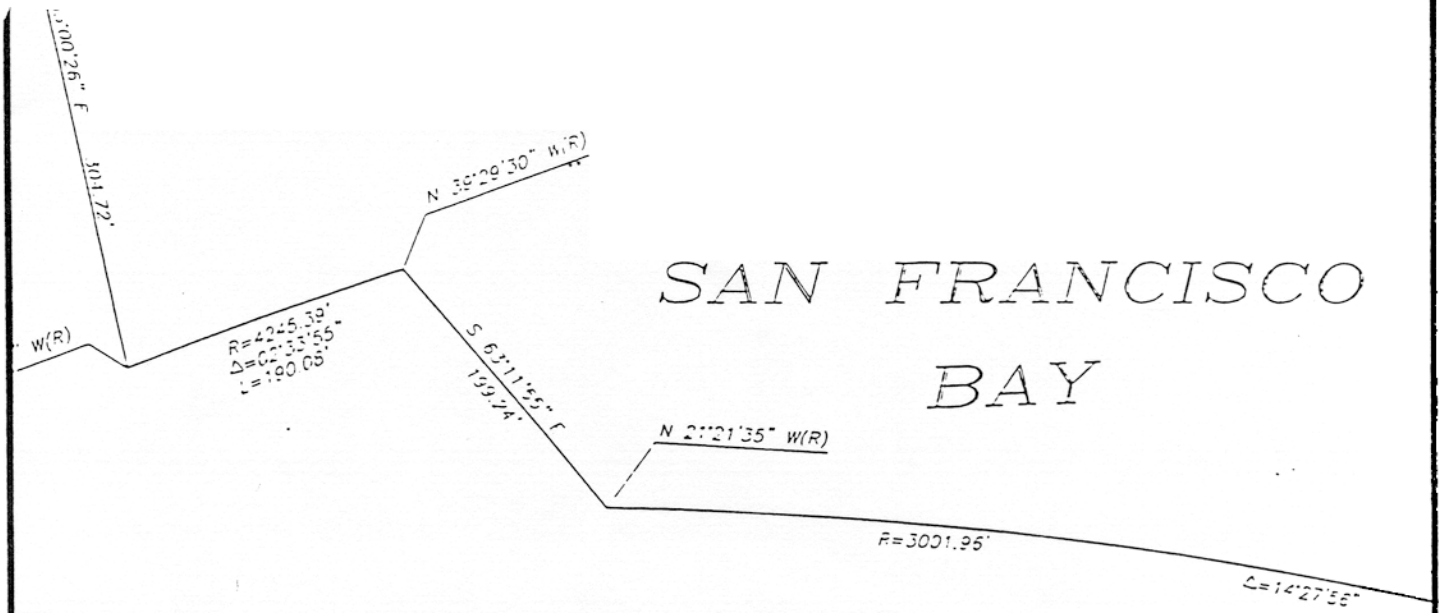
DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.51/8.26
CK'D BY: JVH		DWG. NO. SHEET 2G		

SEE SHEET 2D

57935-3

T.C.E.

COORDINATES, BEARINGS AND DISTANCES SHOWN ARE ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, ZONE 3. MULTIPLY DISTANCES SHOWN BY 1.0000580 TO OBTAIN GROUND LEVEL DISTANCES.



REMARKS	INSTR	DATE	BOOK OR REEL	PAGE OR IMAGE
Including 6.80 acres Existing Highway & Bridge Easement				
18.46 Ac. Temporary Construction Easement				
50.93 Ac. Temporary Construction Easement				
7.79 Ac. Temporary Construction Easement				
0.31 Ac. Aerial Easement				
0.34 Ac. Aerial Easement				

SEE SHEET 2G

N 2123200

0 100 200 300

ACCESS PROHIBITED

STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION DISTRICT 04		EXHIBIT B FEDERAL LAND TRANSFER MAP		
DR. BY: JZ	DATE: 8/11/00	CO. SF	RTE. 80	P.M. 7.51/8.26
CK'D BY: JVH		DWG. NO. SHEET 2H		

ATTACHMENT 8

REGIONAL WATER QUALITY CONTROL BOARD
CERTIFICATION OF COMPLIANCE

California Regional Water Quality Control Board
San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

Date: OCT 19 2001
File No. 2198.11 (KHL)

Ms. Mara Melandry
Environmental Manager, Caltrans
Mail Station 12-C
P.O. Box 23660
Oakland, CA 94623-0660

Subject: Corps Interagency Meeting Comments Summary, Bay Bridge Replacement Project, Alameda County.

Dear Ms. Melandry:

Enclosed please find a copy of Order 01-120, which was adopted by the Board on October 17, 2001.

Please note the various required submittals and due dates for reports and plans that are a part of the Order. We look forward to working with Caltrans in the development of these reports. In addition, leading up to the Board's scheduled January 2002 consideration of Waste Discharge Requirements for the project, we will continue to work with you to develop plan schedules, details, and other information for elements of the project including self-monitoring plans during dredging, the post-construction storm water management plan, and the wetland mitigation plan.

If you have any questions, please contact Keith Lichten of my staff via email to khl@rb2.swrcb.ca.gov, or at (510) 622-2380.

Sincerely,

Bruce D. Wolfe, for

Loretta K. Barsamian
Executive Officer

cc: Bruce Wolfe, RWQCB
Dale Bowyer, RWQCB
Tim Vedlinsky, USEPA, WTR-8
Bob Smith, U.S. Army Corps of Engineers, Regulatory Division

cc (cont.):

Richard Smith, USFWS
Margaret Roper, CDFG
Bob Batha, BCDC
David Woodbury, NMFS

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 01-120

WATER QUALITY CERTIFICATION FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT (EAST SPAN PROJECT), CITY AND COUNTY OF SAN FRANCISCO AND CITY OF OAKLAND, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

1. The California Department of Transportation (hereinafter, Caltrans) on September 12, 2001, applied to the Board for Water Quality Certification under Section 401 of the Clean Water Act for the San Francisco-Oakland Bay Bridge East Span Seismic Safety Project (hereinafter, the Project). Caltrans proposes to replace the existing East Span of the San Francisco-Oakland Bay Bridge with a new bridge constructed north of that span. The Project will be located on San Francisco Bay between the cities of San Francisco, at Yerba Buena Island (YBI) and Oakland.

2. The existing East Span is not expected to withstand a maximum credible earthquake (MCE) on the San Andreas or Hayward fault. The Project will replace the East Span with a new bridge that will withstand a MCE and will meet current roadway design standards for operations and safety to the greatest extent possible.

3. Caltrans has indicated in its application for water quality certification that the Project is a seismic retrofit project subject to California Streets and Highways Code (CSHC) Section 180, et seq. CSHC Section 180.4 requires that all State and local agencies with permitting authority over a seismic retrofit project act on a permit application within 15 days of its submission. As stated in its October 3, 2001, letter to Board staff, Caltrans recognizes the Board's difficulty in meeting this permitting timeline and agrees to Board staff's strategy that the Board act on Caltrans' water quality certification application at the October 17, 2001, Board meeting and act on an application for waste discharge requirements (WDRs) at the January 16, 2002, Board meeting. As such, that letter states that Caltrans agrees to extend the 15-day action requirement to these dates.

Project Description and Impacts

4. Project construction will occur over a seven-year period, including five years to construct the new bridge and two years to remove the existing East Span. Construction of the new bridge will be divided among four separate contracts as follows: 1) Skyway contract, 2)

Self-Anchored Suspension Span and Transition Structures at Yerba Buena Island contract, 3) Oakland Approach Structures contract, and 4) Geofill contract at the Oakland Touchdown. There would be an additional demolition contract to remove the existing bridge. Caltrans intends to open bids on the Skyway contract on November 14, 2001, and award that contract shortly thereafter.

5. The Project would require the use of large-scale equipment and involve labor-intensive activities. Materials and equipment would arrive to the site by land and water. Dredging of approximately 615,000 cubic yards of Bay mud and soil will also be required.

6. This Order applies to the permanent and temporary direct and indirect impacts to waters of the State associated with the Project, which is comprised of the Project components listed above. Total direct permanent and temporary Project impacts to waters of the State are approximately 8.59 acres. These impacts occur in areas known as special aquatic sites. The majority of Project impacts will occur near the Oakland Touchdown area due to dredging for a temporary barge access channel, placement of fill to construct a new westbound roadway, relocation of Caltrans' existing maintenance road, and permanent shading from the new east and westbound roadways. Relatively minor impacts to eelgrass beds adjacent to YBI to construct a temporary barge dock will occur.

7. The Project's direct permanent impacts include elimination of approximately 3.24 acres of eelgrass habitat and approximately 4.19 acres of sand flat habitat. The Project's direct temporal impacts during construction include approximately 0.36 acres of eelgrass habitat and approximately 0.80 acres of sand flat habitat.

8. The Project may temporarily impact special aquatic sites, including eelgrass and sand flats, and open waters of the Bay over the estimated seven years of bridge construction and demolition. Impacts may occur through the discharge of construction and demolition materials and debris, indirect impacts from equipment access and changes to erosion and sedimentation during project dredging and fill placement.

9. The Project will directly impact the beneficial uses of waters of the State for estuarine habitat and preservation of rare and endangered species through construction stage impacts including pile driving. Pile driving was shown to cause fish kills during a pilot project for the new bridge. Caltrans will complete mitigation, including adaptive management to maximize mitigation effectiveness, to minimize these impacts, and is working with the National Marine Fisheries Service (NMFS) to develop a mitigation plan.

10. To mitigate for the Project's direct impacts, Caltrans plans to implement measures on-site to restore special aquatic sites affected during Project construction including:

    a. Harvesting approximately 0.54 acres of eelgrass from the footprint of the temporary barge access channel prior to dredging, planting test plots in adjacent eelgrass beds, and monitoring to evaluate performance;

b. Restoring to its pre-construction bathymetry up to approximately 1.73 acres of the barge access channel with dredge material and excavated sand to facilitate eelgrass colonization and then replanting with eelgrass. Caltrans will monitor replanted eelgrass to evaluate its performance;

c. Restoring approximately 0.80 acres of sand flats that are temporarily affected by the placement of a geotube or mud boils from engineered fill;

d. Implementing measures on-site to replace and/or restore shorebird roosting habitat and commorant habitat; and,

e. Implementing measures to minimize impacts to protected salmonids and to improve water quality at the Emeryville Crescent and portions of the Eastshore State Park.

11. Caltrans will provide additional mitigation for the Project's direct impacts at off-site locations. Caltrans will provide $10.5 million in funds to be divided between the following:

a. Provide funding to the East Bay Regional Park District (EBRPD) to restore, enhance or create new aquatic habitat and transitional uplands at the Eastshore State Park and within Central San Francisco Bay. Potential mitigation sites include:

- Radio Beach Area-potential shoreline restoration including intertidal habitat and upland transition zones;
- Brickyard Cove Area-potential shoreline restoration including intertidal habitat, the removal of riprap and upland transition zones;
- Albany Beach Area-potential beach restoration/nourishment including the removal of parking areas; and,
- Hoffman Marsh Area – potential tidal marsh restoration including the removal of fill and improving tidal action and water circulation.

b. Provide funding to the United States Fish and Wildlife Service (USFWS) to acquire, cleanup contaminants, and initiate restoration of approximately 3,000 acres of diked historic baylands at Skaggs Island, Sonoma County, to tidal marsh and seasonal wetlands.

12. Operation and maintenance of the Project's new bridge, roads, and reconfigured plaza area will indirectly impact beneficial uses through the discharge of polluted storm water and other urban runoff pollutants (e.g., oil and grease, heavy metals, pathogens, nutrients, etc.).

13. To address the Project's post-construction storm water impacts, Caltrans proposes to permanently capture and treat storm water runoff from a portion of the new bridge, the reconstructed metering lights and toll plaza area, and east to the Powell Street interchange in Emeryville. An area totaling approximately 155 acres is proposed for capture and

treatment. This treatment would improve the quality of water draining into the Emeryville Crescent and Central San Francisco Bay, and thus would enhance wildlife habitat.

14. This Order requires Caltrans to submit, acceptable to the Executive Officer, the following documents, reports, or plans prior to beginning construction of the Project, or within specified dates following contract award for the Skyway, to adequately mitigate the Project's impacts. As of the date of adoption of this Order, the items listed below either have been submitted to the Board and are not complete or not otherwise acceptable to the Board, or have not been submitted. Because of project phasing, some plans may be submitted separately, over time, prior to the beginning of construction for the Project's different contracts.
    a. On-site mitigation plan;
    b. Off-site mitigation proposal;
    c. Dredging Operations Plan;
    d. Storm Water Management Plan for activities identified in Finding 13;
    e. Storm Water Pollution Prevention Plan;
    f. Construction phasing schedule; and,
    g. Financial Assurance/Project Budget Authority.

15. This Order requires Caltrans to prepare and implement a post-construction Storm Water Management Plan for activities identified in Finding 13 (SWMP) and construction-stage Storm Water Pollution Prevention Plan or Plans (SWPPP), in compliance with its statewide NPDES permit for storm water runoff. Because of the Project's proximity to sensitive resources, including special status species habitat, and potential to discharge materials that could significantly impact those resources, this Order requires Caltrans to submit a SWPPP(s) for the Project, at least 30 days prior to the beginning of construction for the Project. As a part of the Board's consideration of appropriate mitigation measures for the Project's post-construction/ operation-stage direct and cumulative impacts, this Order requires Caltrans to submit, within one year of contract award for the Skyway, a site-specific SWMP, acceptable to the Executive Officer, including appropriate design measures and storm water treatment controls to minimize and mitigate these impacts.

16. This Order is conditioned upon Caltrans' compliance with waste discharge requirements (WDRs), to be adopted at a future Board meeting. WDRs are necessary to ensure implementation of the work described in the documents, reports, and plans listed in Finding 14 above to address water quality impacts; to further ensure protection of beneficial uses of waters of the State from the Project; and to allow the Board to timely address any changes to the Project and thus any material changes in the character, location and volume of any proposed waste discharges.

Regulatory Framework

17. The Board, on June 21, 1995, adopted, in accordance with CWC, Division 7, Chapter 3, Article 3, a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan).

The State Water Resources Control Board and the Office of Administrative Law approved this updated and consolidated revised Basin Plan on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters. This Order is in compliance with the Basin Plan.

18. The Project is located with the Central portion of San Francisco Bay. Central San Francisco Bay has the following existing beneficial uses defined in the Basin Plan: estuarine habitat, industrial service supply, fish migration, navigation, industrial process supply, preservation of rare and endangered species, water contact recreation, non-contact water recreation, shellfish harvesting, and fish spawning.

19. Caltrans submitted a Clean Water Act 404(b)(1) Alternatives Analysis in its application package, which demonstrates that appropriate effort was made to avoid and then to minimize impacts to waters of the State, as required by the Basin Plan. Board staff held extensive additional discussions with Caltrans regarding its Alternatives Analysis. The Board concurs with the conclusions of the Alternatives Analysis.

20. The Basin Plan Wetland Fill Policy (policy) establishes that there is to be no net loss of wetland acreage and no net loss of wetland value, and a long-term net gain in both, when the project and any proposed mitigation are evaluated together, and that mitigation for wetland fill projects is to be located in the same area of the Region, whenever possible, as the project. The policy further establishes that wetland disturbance should be avoided whenever possible, and if not possible, should be minimized, and only after avoidance and minimization of impacts should mitigation for lost wetlands be considered.

21. The goals of the California Wetlands Conservation Policy (Executive Order W-59-93, signed August 23, 1993) include ensuring "no overall loss" and achieving a "...long-term net gain in the quantity, quality, and permanence of wetland acreage and values...." Senate Concurrent Resolution No. 28 states that "[i]t is the intent of the legislature to preserve, protect, restore, and enhance California's wetlands and the multiple resources which depend on them for benefit of the people of the State." Section 13142.5 of the CWC requires that the "[h]ighest priority shall be given to improving or eliminating discharges that adversely affect...wetlands, estuaries, and other biologically sensitive areas."

22. The California Environmental Quality Act (CEQA) requires that all projects approved by State agencies comply with CEQA. On September 18, 1998, Caltrans filed a Notice of Exemption indicating that the Project, as an emergency project, is exempt from CEQA, pursuant to CSHC Section 180.2 and Pub. Res. Code Section 21080 and 14 Cal. Code of Regs. Section 15269. The Board finds that the Project is exempt from CEQA pursuant to 14 Cal. Code of Regs. Section 15269.

23. The Board has notified the U.S. Army Corps of Engineers (the Corps) and other interested agencies and persons of its intent to issue Water Quality Certification for the Project.

24. The Board, in a public meeting, heard and considered all comments pertaining to the Project.

IT IS HEREBY ORDERED that, with the incorporation of the following conditions, the Board certifies that any discharge from Caltran's Project described herein, will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. The following conditions are associated with this certification:

1. Caltrans shall submit a Report of Waste Discharge Form 200 to the Board's Executive Officer by November 16, 2001. Upon the Board's issuance to Caltrans of Waste Discharge Requirements pursuant to CWC Section 13263 for the Project, Caltrans shall immediately comply with such requirements.

2. Caltrans shall comply with all necessary approvals and/or permits for the Project and its mitigation projects from applicable government agencies, including, but not limited to, Bay Conservation Development Commission, California Department of Fish and Game, NMFS, USFWS, and the Corps, and submit copies of such approvals and/or permits to the Board's Executive Officer prior to the start of construction activity.

3. Not later than 60 days prior to the beginning of construction activity, Caltrans shall submit a construction-phasing schedule.

4. Not later than 60 days prior to the beginning of dredging, Caltrans shall submit, acceptable to the Executive Officer, a Dredging Operations Plan. Upon the Executive Officer's determination that the Plan is acceptable, the Executive Officer may determine that work may begin sooner than 60 days following submittal of the acceptable Plan. Submittal of plans for later phases (e.g., dredging for demolition access) may be completed at future dates, but not later than 90 days prior to the beginning of construction activity/demolition, including staging and dredging, for those phases.

5. Not later than one year following the contract award for the Skyway, Caltrans shall submit, acceptable to the Executive Officer, a plan that addresses the proposed on-site mitigation for special aquatic sites including eelgrass beds and sand flats. The plan shall include all appropriate detail for earthwork and plantings, as well as an implementation schedule, performance standards, and monitoring.

6. Not later than 60 days prior to the beginning of construction activity, Caltrans shall submit, acceptable to the Executive Officer, a final implementation plan describing the additional mitigation activities to be undertaken with EBRPD and USFWS. The

implementation plan shall include detailed descriptions of the proposed activities, including appropriate project plans, an implementation schedule, and reporting. The plan or subsequent report shall demonstrate that Caltrans has fully funded $10.5 million or has $10.5 million in funds available for all activities identified in Finding 11 to be completed by a third party by no later than 60 days prior to the beginning of construction activity. Upon the Executive Officer's determination that the plan is acceptable, the Executive Officer may determine that work may begin sooner than 60 days following submittal of the acceptable plan.

7. Within one year of contract award for the Skyway, Caltrans shall submit, acceptable to the Executive Officer, a conceptual post-construction SWMP including appropriate design measures and storm water treatment controls to address the project's urban runoff impacts to waters of the State. The SWMP shall provide for the appropriate treatment of at least 85% percent of average annual runoff from the area to be treated and shall include appropriate design details, implementation and completion schedules, planting plans, maintenance plans, funding mechanism(s), and all other information, as appropriate.

8. Not later than 30 days prior to the beginning of construction activity of the design measures and treatment controls in the conceptual SWMP, Caltrans shall submit, acceptable to the Executive Officer, a final SWMP with final construction details and all other information, as appropriate, for all appropriate information included in the conceptual SWMP.

9. As soon as feasible following contract award for the Skyway, and not later than 30 days prior to the beginning of construction activity, Caltrans shall submit, acceptable to the Executive Officer, a SWPPP to address the Project's expected construction stage impacts. SWPPPs may be submitted separately for each phase of construction activity/demolition, but must all be submitted, acceptable to the Executive Officer, at least 30 days prior to beginning of each phase of construction activity/demolition.

10. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to CWC §13330 and 23 CCR §3867.

11. This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR Subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

12. Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR Section 3833) and owed by the applicant. The fee for this certification has been paid in full.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 17, 2001.

Loretta K. Barsamian
Executive Officer

ATTACHMENT 9

ENVIRONMENTAL PROTECTION AGENCY LETTER OF CONCURRENCE ON THE LEAST ENVIRONMENTALLY DAMAGING PRACTICABLE ALTERNATIVE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

MAR 15 2001

Mr. Harry Y. Yahata
District Director
Caltrans – District 4
111 Grand Avenue
P.O. Box 23660
Oakland, CA 94623

Dear Mr. Yahata:

This letter responds to your letter of January 17, 2001, in which you requested our concurrence, under the NEPA/Clean Water Act Section 404 Integration Process MOU (NEPA/404 MOU), on the least environmentally damaging practicable alternative (LEDPA) for the **San Francisco Bay Bridge East Span Seismic Safety Project**. It also responds to your letter of January 22, 2001, which requested our views regarding the adequacy of the conceptual mitigation plan for the subject project.

In response to your request regarding the LEDPA, we have reviewed your January 2001 document entitled "Alternatives Analysis and Compliance with Section 404(b)(1) Guidelines." That document describes and analyzes a broad range of alternatives and concludes that Replacement Alternative N-6 is the least environmentally damaging practicable alternative . Based on our review of your analysis, and conversations with your staff and representatives of the Army Corps of Engineers and the U. S. Fish and Wildlife Service, we concur that Replacement Alternative N-6 is the LEDPA. We believe Alternative N-6 would enable Caltrans to meet the project's basic purpose while reducing adverse project impacts to aquatic resources to an acceptable level.

We have reviewed your conceptual mitigation plan of November 2000. We also have discussed this conceptual plan with your staff on several occasions. Based on this review and these discussions, we believe the conceptual mitigation plan identifies appropriate measures, both on-site and off-site, to reduce and offset unavoidable project impacts to non-tidal wetlands, inter-tidal sand flats, and eelgrass. We are particularly interested in the off-site mitigation feature that Caltrans proposes to undertake at the Bruener property. According to your January 22, 2001 letter, this mitigation will consist of creating 64.35 acres of tidal marsh ecosystem. We believe this proposal is sound and should be pursued, although many details will need to be resolved during the development of the final mitigation plan. If, for any reason, it is not possible to implement the off-site mitigation plan at the Bruener property, Caltrans should undertake mitigation of a similar nature and size at the Liquid Gold site or at some other suitable

site. We are available to work with your staff to ensure that the final mitigation plan satisfies these commitments and addresses all pertinent issues.

If you have questions regarding these comments, please contact Michael Monroe of our Wetlands Regulatory Office at (415) 744-1963, or Nova Blazej of my staff at (415) 744-2089.

Sincerely,

Lisa B. Hanf

Lisa B. Hanf, Manager
Federal Activities Office

cc: B. Batha, BCDC, San Francisco
C. Fong, USACE, San Francisco
M. Littlefield, USFWS, Sacramento
J. West, SFBRWQCB, Oakland
C. Wilcox, CDFG, Yountville

ATTACHMENT 10

NATIONAL MARINE FISHERIES SERVICE LETTER OF CONCURRENCE ON IMPACTS AND MITIGATION

THIS ATTACHMENT NO.10 IS NOT AVAILABLE AT THIS TIME

ATTACHMENT 11

BAY CONSERVATION AND DEVELOPMENT COMMISSION
MAJOR PERMIT PURSUANT TO
THE McATEER –PETRIS ACT

THIS ATTACHMENT NO.11 IS NOT AVAILABLE AT THIS TIME

ATTACHMENT 12

ARMY CORPS OF ENGINEERS COMBINED SECTION 404-CLEAN WATER ACT INDIVIDUAL PERMIT AND SECTION 10-RIVERS AND HABORS ACT PERMIT

THIS ATTACHMENT No.12 IS NOT AVAILABLE AT THIS TIME

ATTACHMENT 13

APPROVAL OF LOCATION AND PLANS OF BRIDGE

APPROVAL OF LOCATION AND PLANS OF BRIDGE

(Authorized by Congress)

Whereas, *By an act of Congress, approved* February 20, 1931, *entitled,* "An Act Granting the consent of Congress to the State of California to construct, maintain, and operate a bridge across the Bay of San Francisco from the Rincon Hill district in San Francisco by way of Goat Island to Oakland", *the* State of California was *authorized to* construct, maintain, and operate a bridge and approaches thereto across the Bay of San Francisco, at a point suitable to the interests of navigation, at or near the general site from Rincon Hill, in the city and county of San Francisco, to and across Goat Island, in San Francisco Bay, thence to Oakland, in the county of Alameda, *in accordance with the provisions of the act of Congress entitled "An act to regulate the construction of bridges over navigable waters," approved March 23, 1906, whereby it is provided that such bridge shall not be built or commenced until the plans and specifications for its construction, together with such drawings and map of location thereof as may be required for a full understanding of the subject, have been submitted to and approved by the Chief of Engineers and by the Secretary of War;*

And whereas, *The said* STATE OF CALIFORNIA, acting by and through the CALIFORNIA TOLL BRIDGE AUTHORITY and the DEPARTMENT OF PUBLIC WORKS OF THE STATE OF CALIFORNIA, has now *submitted for examination and approval plans, specifications, drawings, and map of location of a bridge proposed to be built across said* — bay — *at said place, which comply with the requirements of said act of March 23, 1906;*

Now, therefore, *This is to certify that the proposed location and said specifications and the plans which are hereto attached are hereby approved by the Chief of Engineers and by the Secretary of War, pursuant to the above-mentioned acts of Congress, subject to the following conditions:*

1. That the District Engineer of the Engineer Department at Large in charge of the district within which the bridge is to be built may supervise its construction in order that said plans shall be complied with.

2. That all work shall be so conducted that the free navigation of the waterway shall not be unreasonably interfered with; that the present navigable depths shall

not be impaired; and that the channel or channels through the structure shall be promptly cleared of all falsework, piling, or other obstructions placed therein or caused by the construction of the bridge, to the satisfaction of the said district engineer, when in his judgment the construction work has reached a point where such action should be taken, and in any case not later than —— 90 —— *days after the bridge has been opened to traffic.*

3. That such fenders as may be found necessary in the interest of navigation and ordered and approved by the Chief of Engineers, shall be constructed simultaneously with the construction of said bridge and thereafter be maintained by and at the expense of its owners.

4. That such lights, signals, or other aids to navigation in addition to those prescribed by law, as may be required by the Chief of Engineers and approved by the Commissioner of Lighthouses for the safety of navigation shall be installed and maintained by and at the expense of the owners of the bridge both during and after construction.

5. That this instrument supersedes the War Department instrument signed by the Chief of Engineers and the Secretary of War under dates of January 15, 1932, and January 19, 1932, respectively, approving the location and plans of a bridge at this locality.

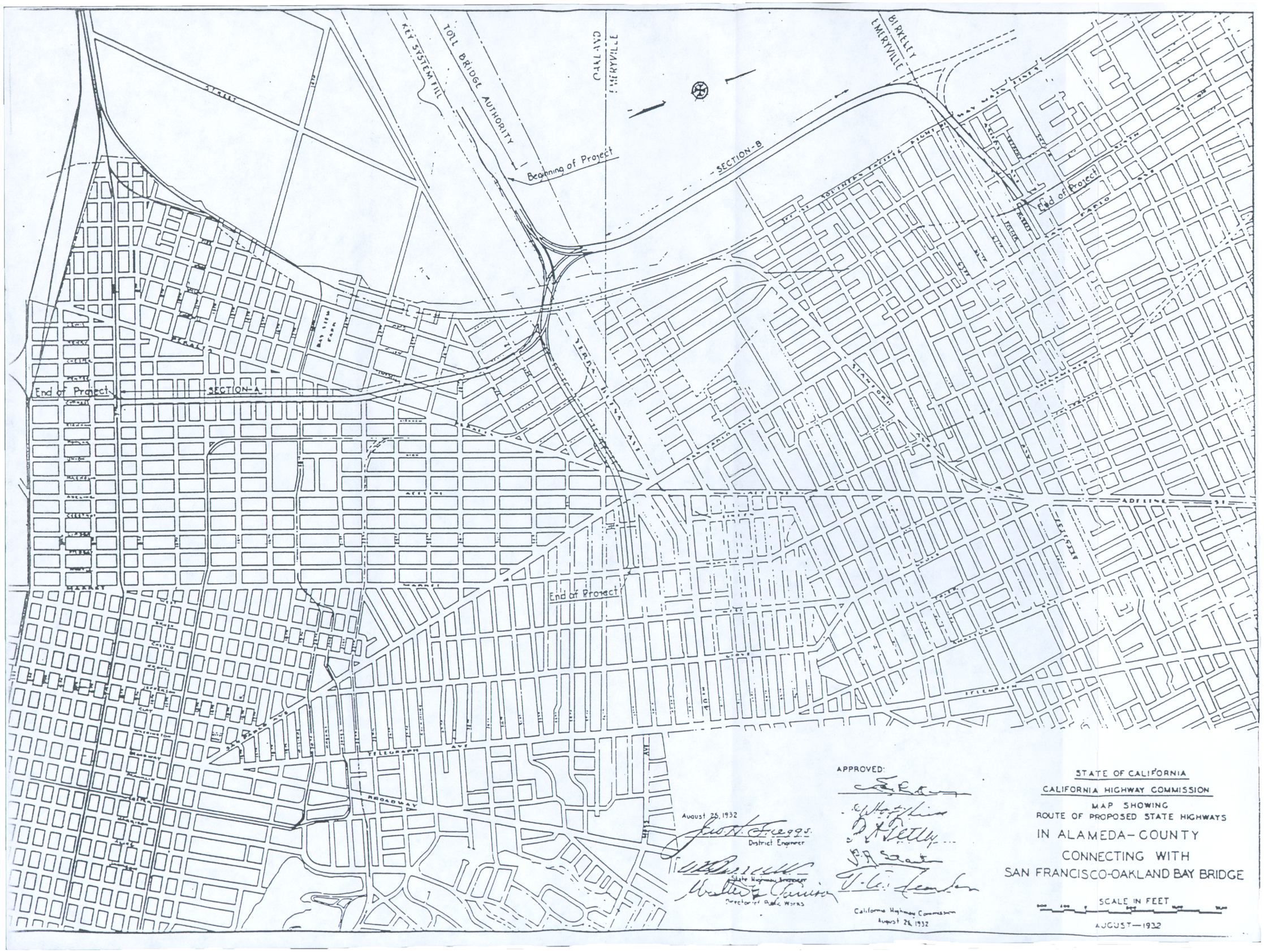
Witness my hand this 23rd *day of* —— May ——, *19* 32.

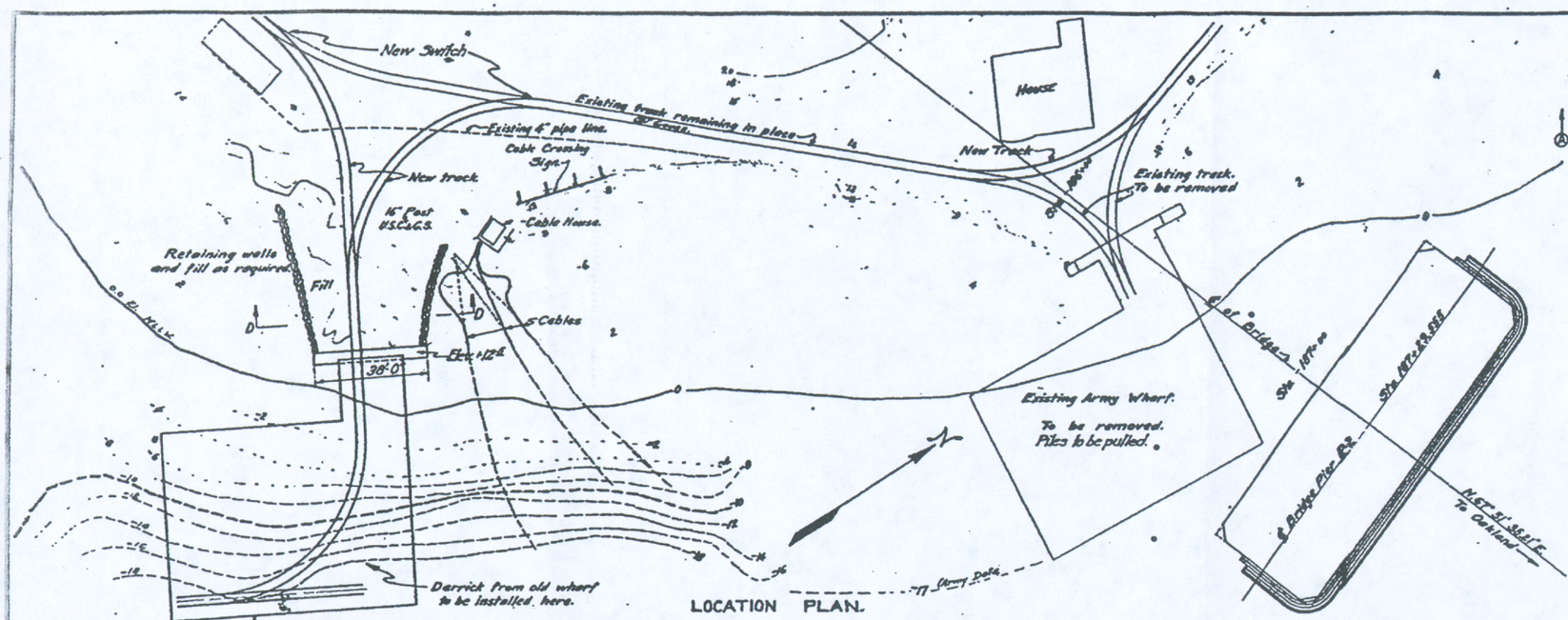
Lytle Brown,
Major General,
Chief of Engineers.

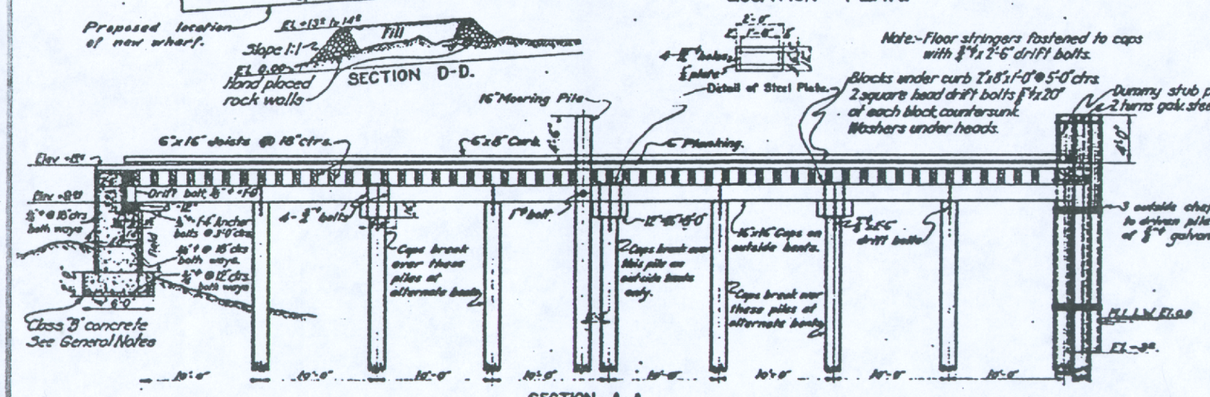
Witness my hand this 25th. *day of* —— May ——, *19* 32.

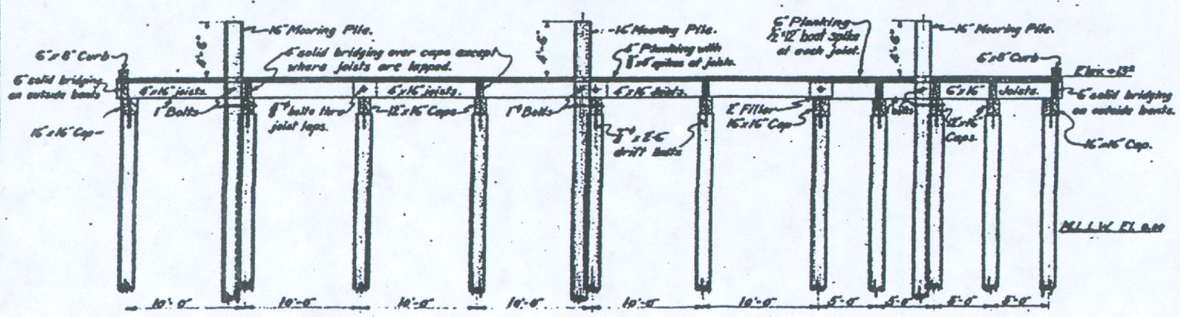
F. H. PAYNE,
The Assistant *Secretary of War.*

Form No. 92c
W. D., O. C. of E.
Ed. 1923—1,000


KEY SYSTEM FILL
TOLL BRIDGE AUTHORITY
OAKLAND
EMERYVILLE
BERKELEY
EMERYVILLE
Beginning of Project
SECTION-B
End of Project
SECTION-A
End of Project
APPROVED:
August 25, 1932
District Engineer
State Highway Engineer
Director of Public Works
California Highway Commission
August 26, 1932
STATE OF CALIFORNIA
CALIFORNIA HIGHWAY COMMISSION
MAP SHOWING
ROUTE OF PROPOSED STATE HIGHWAYS
IN ALAMEDA-COUNTY
CONNECTING WITH
SAN FRANCISCO-OAKLAND BAY BRIDGE
SCALE IN FEET
AUGUST—1932



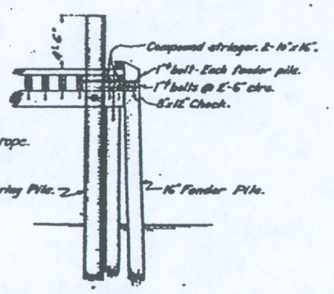




Note:-Floor stringers fastened to caps with 3/4"x12"-6" drift bolts.

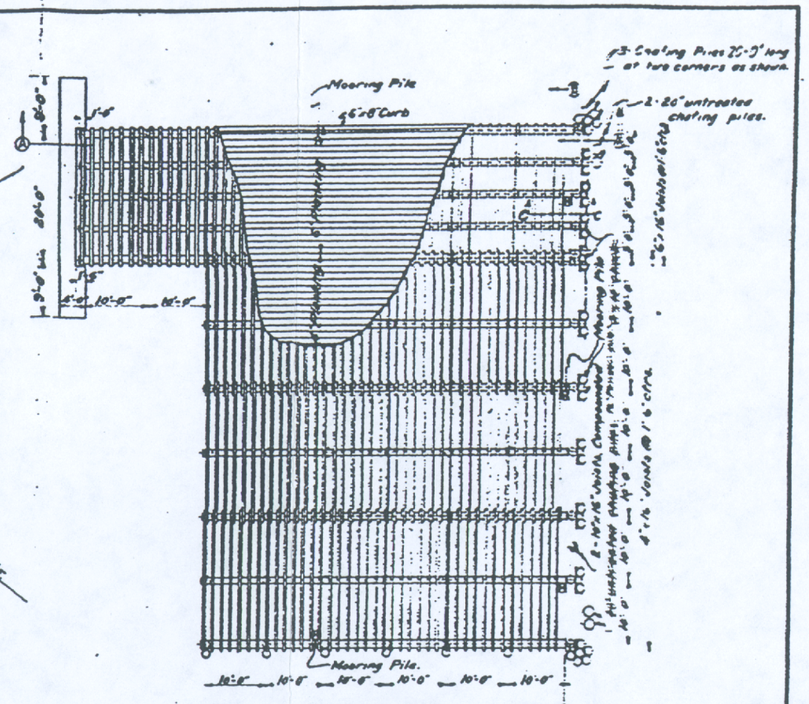
Blocks under curb 2"x8"x1'-0" @ 5'-0" ctrs. 2 square head drift bolts 3/4"x20" at each block countersunk. Washers under heads.

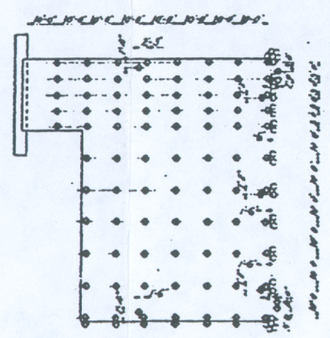
Dummy stub pile. 2 turns oak. steel wire rope.



GENERAL NOTES

All bearing surfaces and sides and ends of timbers in contact shall be well coated with creosote oil or equivalent.
All piles shall be Douglas Fir, creosoted, except as otherwise noted. Penetration to be determined by the Engineer, and to the satisfaction of the Government.
All timber, except deck planking and curb, shall be creosoted with 12 # per cu.ft.
All timber shall be Douglas Fir, common structural grade.
All thru bolts, except where steel plates are located, shall have malleable iron washers under heads and nuts.
All drift bolts shall be headed and pointed.
Holes for drift bolts, through bolts and ship spikes shall be bored 1/8" less than the diameter of the bolt, except those near ends of stringers which shall be bored to the same diameter as the bolt.
All caps and stringers to be S1E. Flooring S1S, curbs and sills S4S.
All hardware to be galvanized.
Abutment to be Class 'B' concrete, resting on rock or other suitable material.





NOTE: All work in connection with removal and reconstructing Army wharf to be done under Payment Item No. 8

BOARD OF CONSULTING ENGINEERS

APPROVED
Director of Public Works

CORRECT:

APPROVED:

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

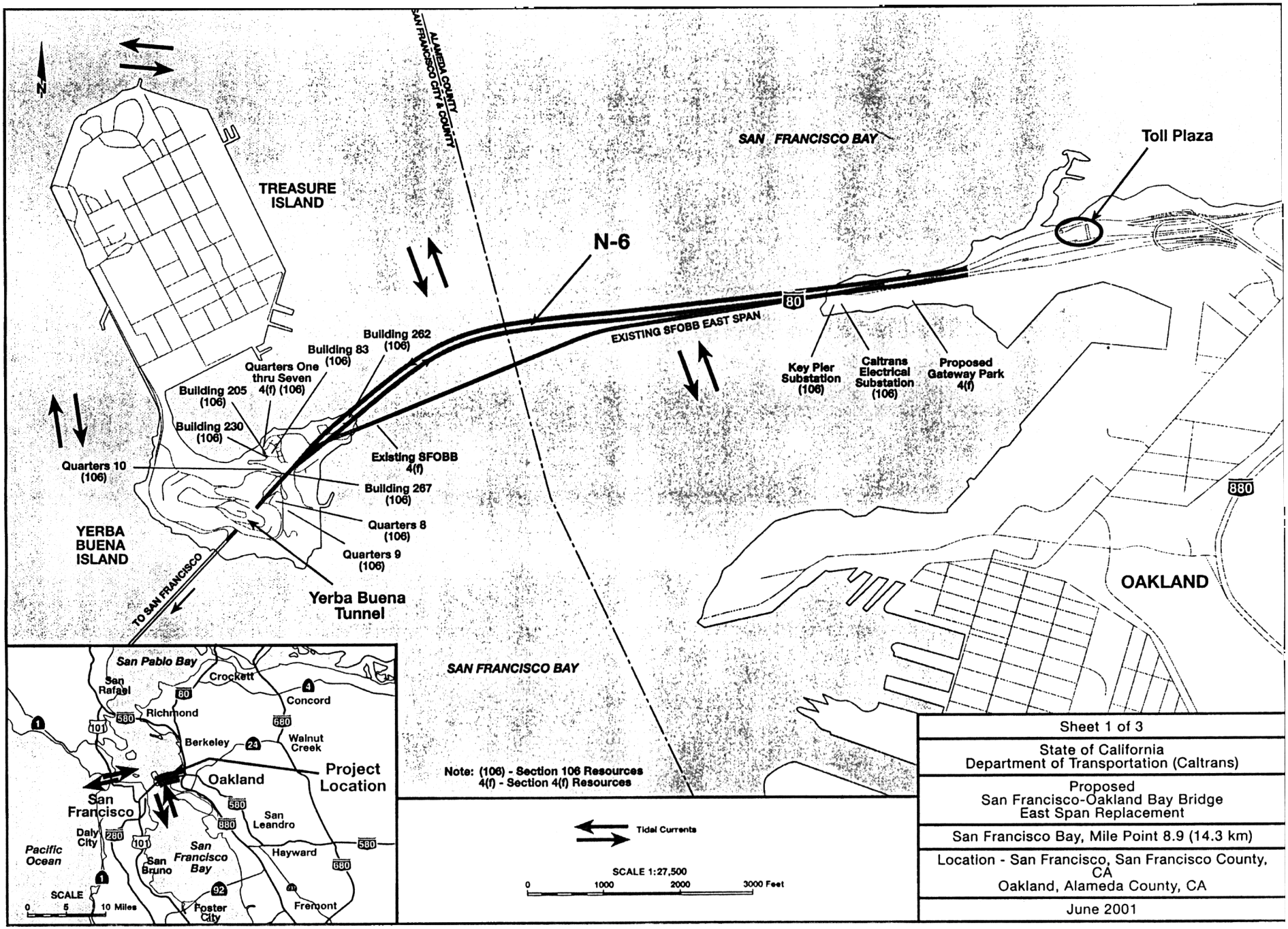
SAN FRANCISCO-OAKLAND BAY BRIDGE

SUBSTRUCTURE-EAST BAY CROSSING
PIER E-2
RECONSTRUCTION OF army WHARF

SCALE IN FEET

CONTRACT NO 4 DRAWING NO 4

JULY — 1932



Sheet 1 of 3

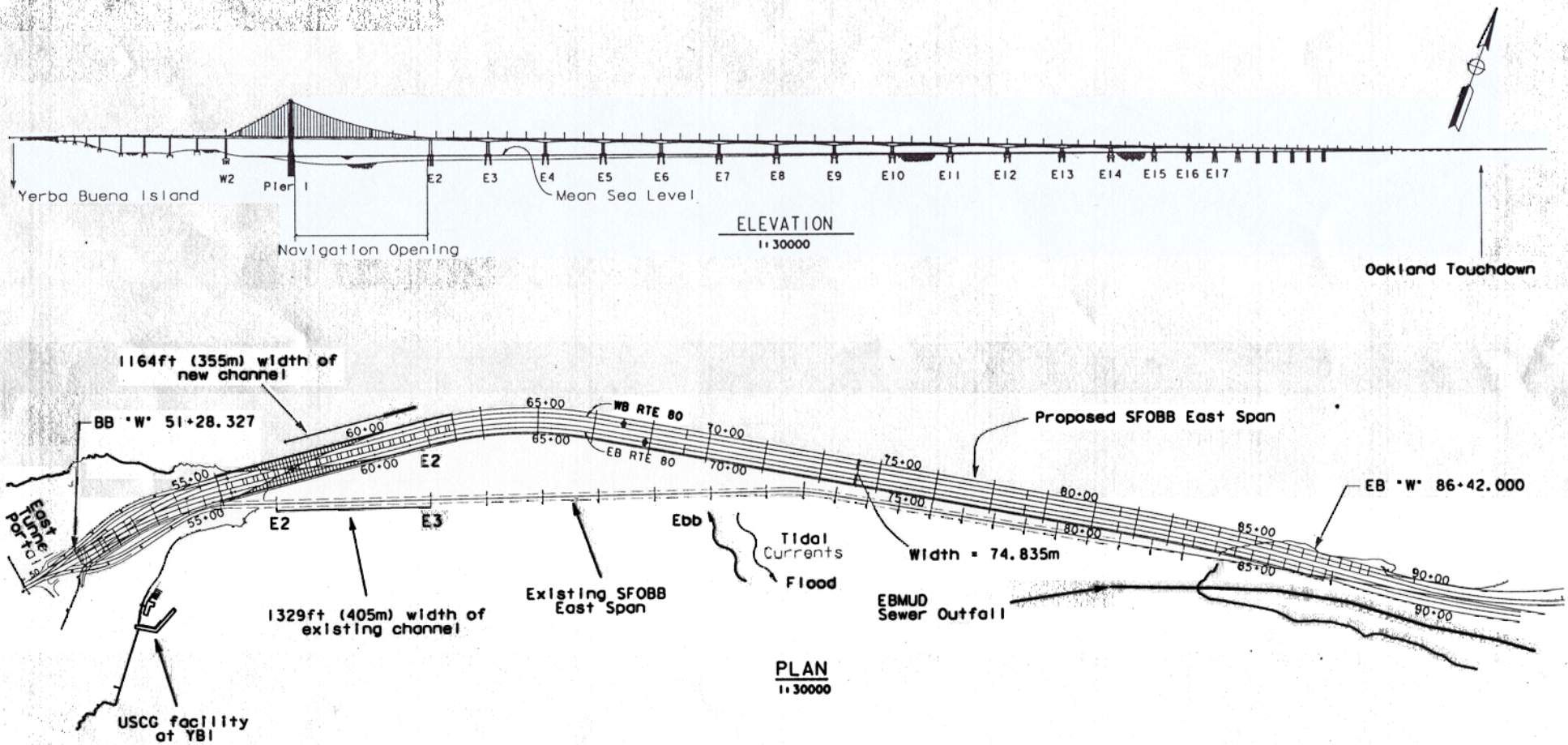
State of California
Department of Transportation (Caltrans)

Proposed
San Francisco-Oakland Bay Bridge
East Span Replacement

San Francisco Bay, Mile Point 8.9 (14.3 km)

Location - San Francisco, San Francisco County, CA
Oakland, Alameda County, CA

June 2001



Proposed Span
Length = 11,524.8ft (3513.67m)
Width = 245.5ft (74.8m)

Existing Span
Length = 10,196.4ft (3107.9m)
Width = 63.3ft (19.3m)

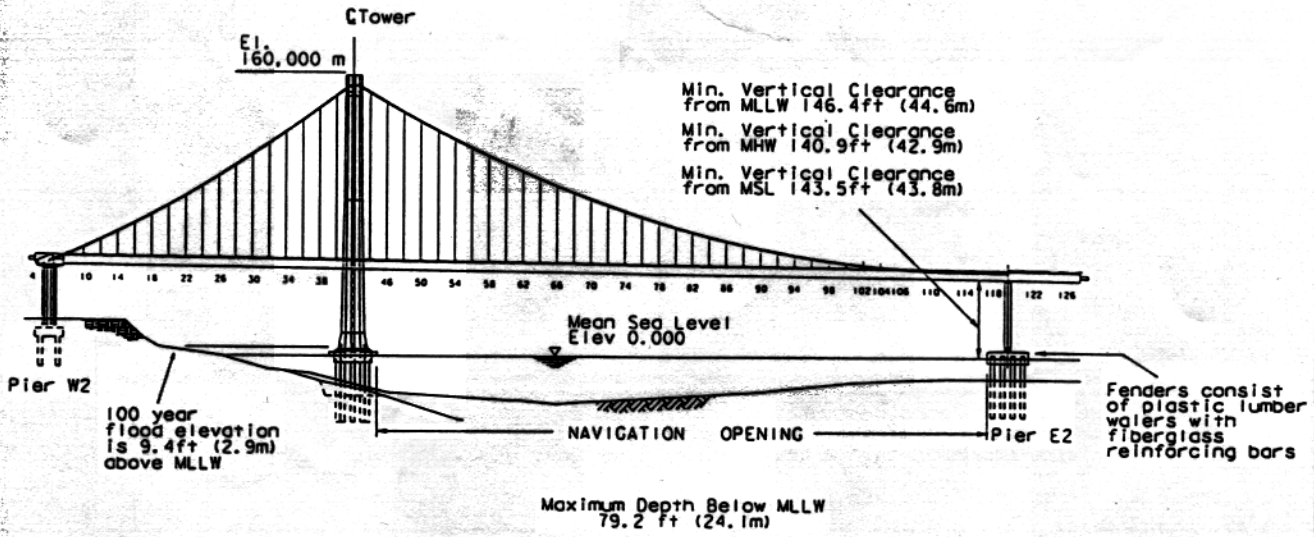
Length of proposed span is based on the following limits:

BB - Yerba Buena Island
(Where new bridge meets existing bridge)

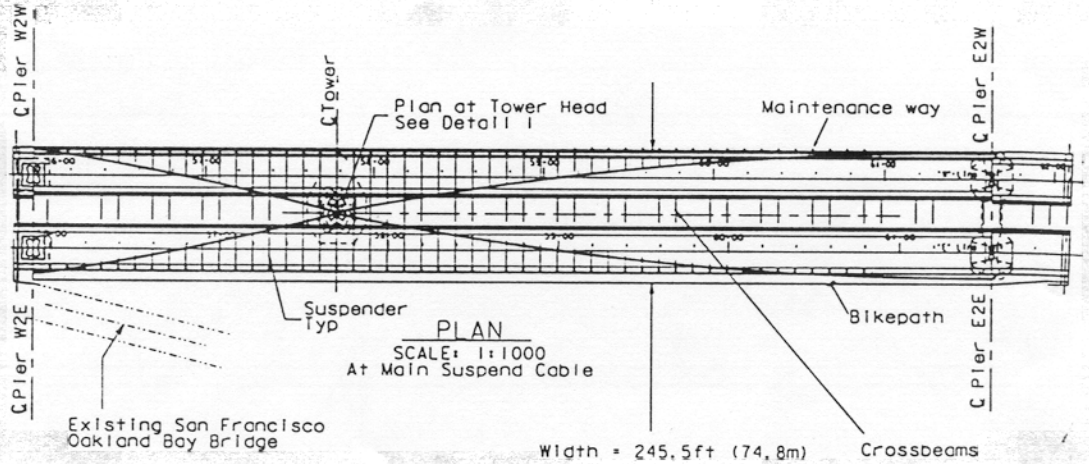
EB - Oakland Touchdown Area
(Where the road leaves grade)

Sheet 2 of 3
State of California Department of Transportation (Caltrans)
Proposed San Francisco - Oakland Bay Bridge East Span Replacement
San Francisco Bay, Mile Point 8.9 (14.3 km)
Location - San Francisco, San Francisco County, CA Oakland, Alameda County, CA
Jan 2001

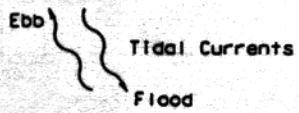
NAVIGATION OPENING



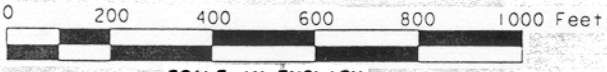
ELEVATION
SCALE: 1:1000



PLAN
SCALE: 1:1000
At Main Suspend Cable



Note:
Datum is NGVD 29 = 0.00ft (0.00m)



SCALE IN ENGLISH

Sheet 3 of 3
State of California Department of Transportation (Caltrans)
Proposed San Francisco - Oakland Bay Bridge East Span Replacement
San Francisco Bay, Mile Point 8.9 (14.3 km)
Location - San Francisco, San Francisco County, CA Oakland, Alameda County, CA
Jan 2001